

HC107
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1958
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Economic and INDUSTRIAL SURVEY

LAND USE AND ZONING

COUNTY OF LASSEN
CITY OF SUSANVILLE
CALIFORNIA

Economic

Ind. surveys

Land Use

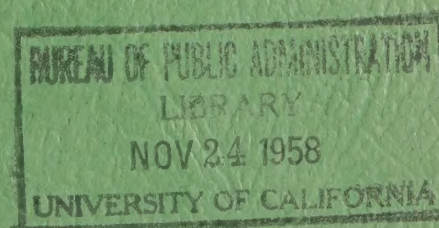
Zoning Ind.

Employment

Lassen Co.

Susanville

Planning Consultant



ECONOMIC AND INDUSTRIAL SURVEY
and Status of
Industrial Land Use and Zoning

HC 107
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COUNTY OF LASSEN
CITY OF SUSANVILLE

CALIFORNIA

June, 1958

Proposals for Economic Development and the
Best Future Utilization of Land Within the Area.

James M. Campbell, Planning Consultant, Menlo Park, California

LASSEN COUNTY

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Floyd Talbot

June 1958

The Honorable Board of Supervisors
County of Lassen

The Honorable City Council
City of Susanville

Gentlemen:

We transmit herewith the Economic and Industrial Survey of Lassen County and the City of Susanville in accordance with your authorization and as provided in your cooperative agreement.

It is our belief that this compilation of information on the County, the City of Susanville and the various other communities will be of value both to local agencies and interests, and to those who may be attracted to the County by its many assets and attractive features.

May we commend you on your foresight in acting to promote and protect the future of your area, and thank you for the fine assistance you have offered in the preparation of this survey report.

Respectfully submitted,

James M. Campbell
James M. Campbell,
Planning Consultant



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ACKNOWLEDGMENTS

The success of a survey such as this depends in large measure upon the degree of cooperation and assistance provided by the many persons and agencies possessing information of value to the survey. We who were responsible for the preparation of the survey found in Lassen County an unusaully fine spirit of interest and willingness to assist among all those contacted; individuals, officials and public and private agencies.

We wish to express our sincere thanks to all who contributed to this project, and have listed below a few of those who were most helpful.

Lassen County Board of Supervisors and Planning Commission
Susanville City Council and Planning Commission
County and City Officials and Department employees
National Forest Supervisors and Staff Members
Lassen County Chamber of Commerce, Susanville.
Bieber Chamber of Commerce - Doyle Civic League
Fruit Growers Supply Company - Eastman's Studio
Southern Pacific Railroad - Western Pacific Railroad
Great Northern Railroad - Johns, Manville Co.
U.S. Bureau of Land Management
State Department of Employment

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INTRODUCTION

This survey is a cooperative project of the County of Lassen and the City of Susanville which was undertaken for the purpose of assembling information related to the natural resources, existing facilities and services, and the potentials for sound, orderly and economic future development of the total area.

The information assembled is intended to be made available to those persons and agencies concerned with administration, planning and development for the future in order that future growth and development may be coordinated and guided toward the ideal objective of a balanced and diversified use of land and resources which will result in their highest and best utilization.

Findings of the survey show that the area does contain firm potentials for increased growth, economic stability, employment, investment opportunities, and a wealth of features related to recreation and pleasant living.

Features contributing to the above are as follows:

1. Real progress toward a stabilized timber industry through the cooperative efforts of public and private timber owners and operators. Modern sustained yield programs will insure a strong perpetual timber industry.

2. Continuing progress in expanding and diversifying agriculture through the development of irrigation water sources and adding to feed crop acreages, through continuing development of specialty crops such as seed production, seeding and improvement of natural grazing lands, etc.

3. Recent development of mineral products such as volcanic cinders for use as naturally colored light-weight aggregate in building blocks and other uses, and layered sandstone stepping stone and construction blocks, and other such developments as will supplement the ultimate production of iron, gold, copper, uranium, building stone and other known minerals.

4. Expanding base of employment and beneficial activities of public agencies such as Sierra Ordnance Depot, National Forest Service, State Division of Forestry, Bureau of Land Management, Soil Conservation Service, etc.

5. Recent general recognition of the tremendous potential for recreation development which is expected to become the greatest attraction and economic asset of the area.

Availability of large areas of isolated low-cost land may attract additional military and related industrial activities.

CHARACTERISTICS OF THE COUNTY

A. LOCATION

Lassen County is located in the northeasterly part of the State of California and adjacent to the Nevada State line. Modoc County lies between it and the Oregon line. The County was established in April, 1864, following a dispute between California and Nevada over the Honey Lake area, and an official survey to establish the boundary.

Susanville, an incorporated city, is the seat of County government.

B. AREA

The County contains an area of 4,550 square miles, or 3,026,500 acres of which 115,840 acres is covered by inland water. The U.S. Bureau of Land Management controls 1,101,939 acres, the U.S. Forest Service 637,964 acres.

C. LAND RESOURCES

Forests - Pine, Fir, Pinon, Juniper	1,224,000 acres
Woodland, hardwoods	2,000 acres
Grassland	140,000 acres
Chaparral, sage and other brush	1,454,000 acres
Cultivated, urban or industrial	86,000 acres
Desert, marsh or barren	5,000 acres

D. ELEVATION

Elevations in the county range from 3,950 feet to a high point of 8,726 feet on Buckthorn Mountain. Average altitude is 4,100 feet. Elevation at Susanville, the county seat, is 4,152 feet.

E. TOPOGRAPHY

Lassen is a county of mountains and high plateaus at the southern end of the Cascade Range and just north of the Sierras. Its area is about equally divided between rugged forested mountains, plateau areas, and valley lands. Honey Lake Valley, Big Valley and Long Valley are at elevations of about 4,000 feet and Madeline Planis lies about 1,000 feet higher. The plateaus are at elevations of about 6,000 feet, and mountain peaks rise above 8,000 feet.

The mountain ranges, running generally north and south, divide the county into two drainage basins with the central and southern portions draining into Honey Lake via Susan River, Long Valley Creek and a number of smaller streams and the westerly areas draining into the Central Valley basin through Pit River and other streams.



Honey Lake is a large but shallow body of water which covers 64,000 acres when full, and which dries up by evaporation during dry periods. Eagle Lake, in the central part of the county and about 1,000 feet higher covers an area of 27,813 acres, is considerably deeper and holds a fairly constant level.

F. GEOLOGY

Tertiary rock covers all of Lassen County except for a narrow strip of older rock along the southern boundary in the Diamond Mountain area. Lassen Peak, the only volcano that has been active in this country in recent years, lies just across the western county boundary, and evidence of volcanic activity is found over much of the north central area.

G. CLIMATE

Although temperatures and precipitation vary greatly with elevation and location, temperatures are generally moderate and rainfall light. During most of the year days are warm, nights are cool, and little rain falls. From mid-December into March the weather is cold and snowstorms are frequent. Heaviest rain and snow falls on the westerly mountain slopes and on the high ranges, with the fall diminishing progressively to the east.

Susanville, located in the south-eastern part of the County in a beautiful natural setting between the mountains and level plains, is protected from winter storms and heavy snow.

Susanville:

Average annual precipitation:	20.05 inches
Average mean temperature:	49.9 degrees

A climate chart for Susanville and other weather station locations appears on the following page.

CLIMATE

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
<u>Precipitation</u> <u>(Av.)</u>												
Doyle	.17	.20	.56	.90	1.45	1.39	.83	1.36	1.34	.82	.62	.48
Litchfield	.23	.26	.47	.93	1.26	.95	.84	1.85	.65	.84	.42	.46
Madeline	.51	.30	.64	.91	1.03	1.72	2.56	1.77	1.34	.76	1.00	.76
Susanville	.20	.19	.67	1.04	2.21	3.10	4.14	2.82	2.81	1.20	1.17	.50
Westwood	.07	.35	.85	1.42	3.14	3.52	2.89	3.93	2.17	1.61	.94	.82
<u>Snowfall</u> <u>(Av.)</u>												
Doyle	.0	.0	T	1.0	1.1	2.6	4.3	2.5	4.2	3.1	1.5	T
Litchfield												
Madeline	.0	T	.3	1.7	4.1	12.6	13.6	12.6	11.0	4.9	1.4	.1
Susanville	.0	.0	.0	.9	2.1	15.2	28.6	11.9	10.8	1.8	.6	.0
Westwood												
<u>Temperature</u> <u>(Av. Maximum)</u>												
Madeline	83.1	83.2	74.0	63.1	50.8	40.2	36.3	40.9	48.0	56.0	62.6	73.0
Susanville	87.1	85.5	75.7	65.0	52.1	41.5	39.6	45.6	52.3	61.3	69.3	78.5
<u>(Av. Minimum)</u>												
Madeline	43.1	42.0	34.5	27.3	20.5	13.1	10.6	14.7	20.6	26.6	32.3	37.4
Susanville	50.7	49.8	43.0	35.9	29.7	22.6	21.2	24.7	29.3	34.0	39.2	45.0

Frost

	Length of record (years)	Av. date of last killing frost in spring	Av. date of first killing frost in autumn	Av. length of growing season- last killing frost to first killing frost (days)	Latest killing frost in spring (date)	Earli- est date of killing frost autumn
Madeline	17	June 22	Aug. 24	63	July 14	July 18
Susanville	20	May 19	Oct. 4	138	June 22	Sep. 8

RESIDENT POPULATION

1958 Estimates

	Population	Households
Lassen County	16,500	5,100
Susanville Area	7,500 (5,300 within city limits)	2,200
Herlong	2,800	800
Westwood Area	2,300	650
Janesville	560	160
Bieber	490	141
Doyle	300	87
Standish	300	85
Nubieber	260	75
Wendel	210	60
Litchfield	150	44
Milford	150	44
Ravendale	130	37
Madeline	110	30
Little Valley	70	19
Pittville	60	16
Termo	50	15

Source: Post Office Counts, Sales Management Magazine

Population History and Projection, Lassen County, California

	Lassen County	California
1920	8,507	3,426,861
1930	12,587	5,677,251
1940	14,479	6,907,387
1950	18,474	10,586,223
1955	17,400	13,035,000
1958	16,500	14,280,400
Prediction: ^{1/}	67	
2050	67,500	45,000,000

1/

State of California, Department of Water Resources, Division of
Resources Planning, Appendix A of Bulletin No. 58.

ASSESSED VALUATION, TAX RATES

Lassen County Tax Rate, 1957-1958:	\$1.88 per \$100 assessed valuation
Susanville " " " " :	\$1.78 " " " "

Lassen County Assessed Valuation, 1957:	\$22,776,760
Susanville " " " :	\$ 4,107,760

Lassen County Bonded Indebtedness, 1957:	\$ 297,436
" " Total Receipts, 1957:	\$ 4,244,953
" " Total Expenditures, 1957:	\$ 4,201,309
" " Value of Properties, 1957:	\$ 3,396,000

Taxes, State:

Sales and Use Tax, 3% on wholesale and retail sales of tangible personal property. Exceptions include food, motor vehicle fuels, gas, electricity and water.

Bank and Corporation Income Taxes, 4% on net income.

Unemployment Insurance Tax, basic rate 2.7% of payroll to \$3,000 per year per employee.

Personal Income tax, rate from 1% to 6% on net income after exemptions deducted.

Taxes, County:

County Sales Tax, 1%, collected by State. In the City of Susanville, tax of 1/4 of 1% goes to the County; 3/4 of 1% goes to the City.

County General Tax is collected on real estate and personal property. Assessed valuation is approximately 25% of market value according to State Board of Equalization.

BUSINESS DATA, 1957

	Lassen County	Susanville
No. of Consumer Spending Units	5,300	2,200
No. of Businesses	506	234
No. of Professional Services	36	32
Retail Sales		
Total	\$16,131,000	9,694,000
Per Household	3,163	
Quality Index	100	118
Index of Sales Production	84	126
Store Sales		
Food	6,855,000	2,602,000
Eating and Drinking Places	892,000	469,000
General Merchandise	975,000	587,000
Apparel	404,000	404,000
Furniture, Household Appliances	358,000	349,000
Automotive	3,401,000	3,308,000
Gas Stations	1,465,000	458,000
Lumber, Building, Hardware	362,000	291,000
Drugs	388,000	360,000

EFFECTIVE BUYING INCOME, 1957

Net Dollars	31,393,000	13,279,000
Percent of U.S.	.0105	.0045
Per Capita Income	1,903	2,043
Per Household Income	6,155	6,640
Per Consumer Spending Unit	5,901	5,987
Income Breakdown of Households		
No. of Households	5,100	2,000
Percent of Households, Income:		
\$ 0 to \$2,499	12.0	10.7
\$2500 to \$3999	16.2	14.6
\$4000 to \$6999	49.6	50.1
\$7000 to \$9999	15.5	16.6
\$10,000 and over	6.7	8.0

Source: Sales Management Magazine

INDUSTRY AND EMPLOYMENT.

Major Employers and their products are:

Sierra Ordnance Depot	Military supply
Paul Bunyan Lumber Company	Lumber (wholesale and retail)
Wirth-Lucero Lumber Products	Sash, window frames, etc.
Orr Wood Products	Sash, window frames, etc.
Lassen Cinder Company	Volcanic cinder aggregates for building blocks, all types of lightweight concrete and roofing granules.
Todd and Sons	Sash, window frames, etc.
U.S. Forest Service	Lumber and Recreation
State Division of Forestry	Lumber and Recreation
Fruit Growers Supply Company	Lumber (wholesale and retail)

In 1956 there were 21 manufacturing establishments in Lassen County which employed 1,090 workers with a total yearly payroll of \$5,612,000.

There are 625 acres in the county now suited to industrial sites and 420,000 acres of stumpage for pulp development.

Industry will be attracted to the area as the California and Nevada markets expand and more water is made available for industrial use.

Jobseekers at public employment office:

All classifications of workers within lumber industry; varied occupations in service; skilled; semi-skilled and unskilled trades; professional; agriculture.

Entry wage rates of experienced workers:

Lumber workers \$1.87-1/2 per hour; Clerical workers \$200-\$225 per month; Sales Clerks \$1.00 per hour.

History of Labor - Management relations: Excellent.

FACILITIES AND SERVICES.

General services are provided by county departments, officials and employees, and by special assessment districts.

SCHOOLS

SUSANVILLE:

Lassen Jr. College (New Building 1948)	227 Students
Lassen Union High School	551 Students
Susanville Elementary, 4 schools (3 New Buildings 1949)	1148 Students
Roosevelt Swimming Pool (Operated by Elementary Schools)	
1 Seventh Day Adventist Parochial School	50 Students

WESTWOOD:

Westwood Elementary Schools (New buildings: 1950 and 1952)	314 Students
Westwood Jr.-Sr. High School	94 Students

HERLONG:

Herlong Elementary School (New Building 1952)	615 Students
Herlong High School (New Building 1953)	204 Students

BIEBER:

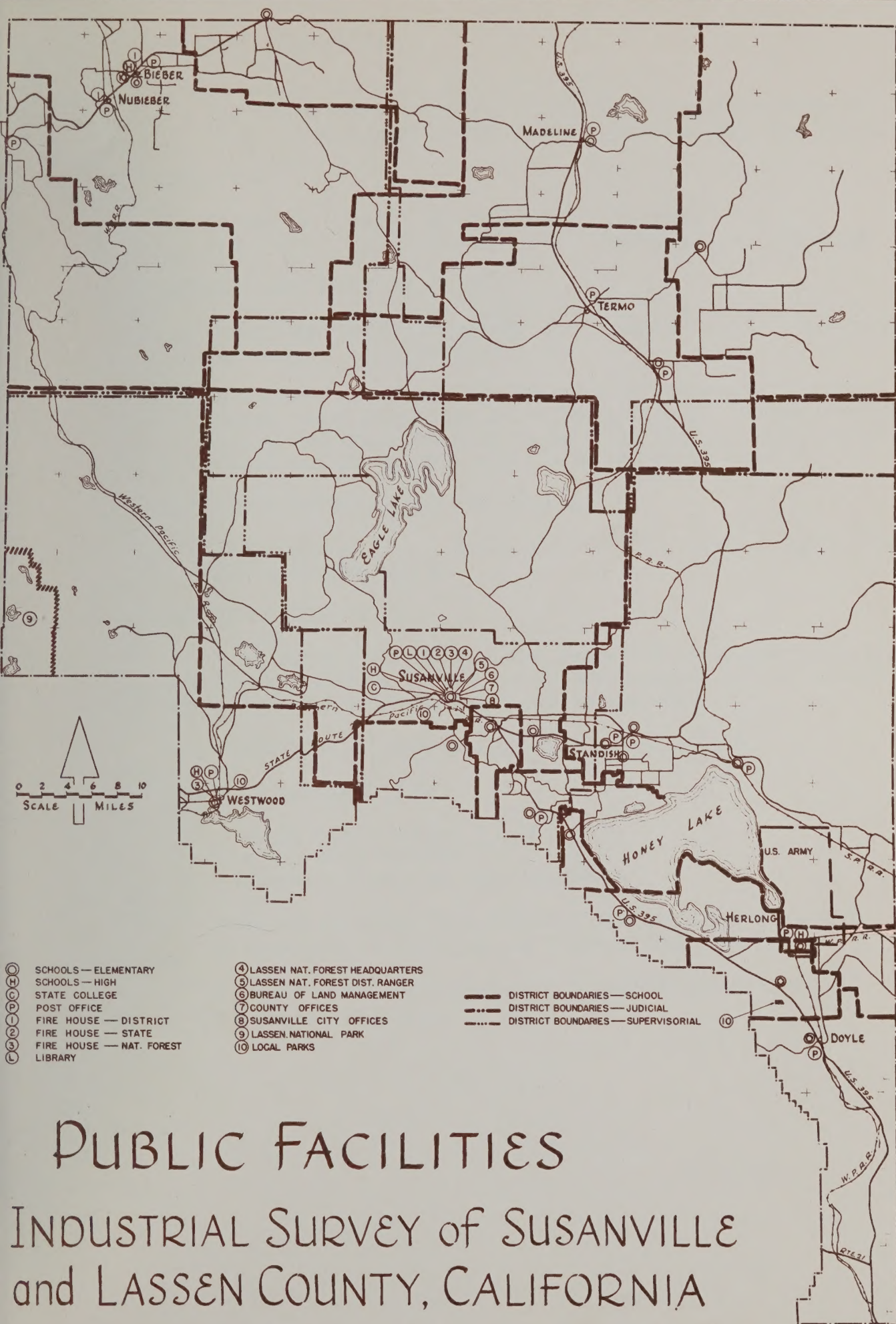
Bieber Elementary School	119 Students
Bieber High School	44 Students
Twelve Rural Schools	400 Students

HOSPITALS:

Susanville	2 - and one additional proposed
Westwood	1
Herlong	1
Bieber	1

HOUSING:

Available in all communities at reasonable purchase costs and rentals. Two and three bedroom houses sell for \$5,000 to \$15,000 and rent for \$30 to \$85.



PUBLIC FACILITIES

INDUSTRIAL SURVEY of SUSANVILLE and LASSEN COUNTY, CALIFORNIA

SPECIAL DISTRICTS:

Cemetery 3 Fire Protection 5
Big Valley Pest Abatement, Susanville Consolidated Sanitary,
Clear Creek Lassen County Water, etc. (see map, next page).

CHURCHES:

Susanville	14,	Herlong	8,	Westwood	7,		
Janesville	2,	Bieber	1,	Nubieber:	1,	Standish	1

LODGES AND SERVICE CLUBS:

Susanville - 20,	Westwood - 6,	Janesville - 5,	Bieber 4,
Herlong - 3,	Standish - 1		

In addition: Lassen County Chamber of Commerce, Lassen County Farm Bureau and seven Farm Centers, Lassen Pomona Grange and Three Subordinate Granges, Lassen County Cattle-men's Association, nine 4-H Clubs, two FFA Chapters.

GOVERNMENT OFFICES, SUSANVILLE

Federal - 9,	State - 8,	Lassen County - 22,
City of Susanville - 5.		

COUNTY LIBRARY:

Main and 16 branches including Susanville, in Regional Library System which include Plumas and Sierra Counties, serves elementary schools, 80,000 volumes, facilities expanding.

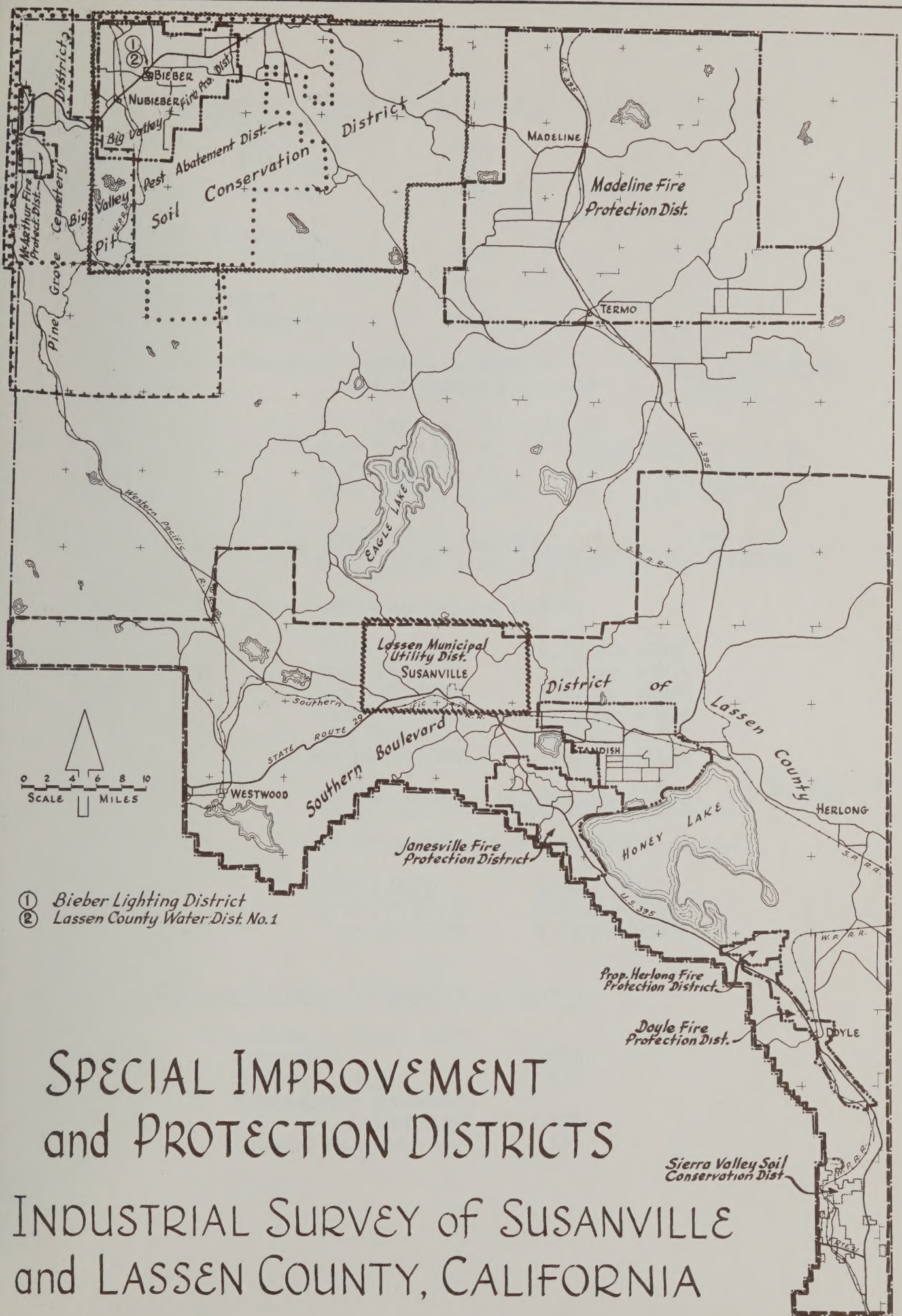
FAIRGROUNDS: Complete modern site at Susanville.

SHERIFF and CORONER

8 full time deputies, 1 cook
4 part time deputies
80 man auxiliary (special deputies)

Main jail and office in Susanville, Substation and branch jail in Westwood, branch jail and Resident Deputy in Bieber

4 county cars, radio equipped. Personal cars on call.
2 main transmitters.



SPECIAL IMPROVEMENT and PROTECTION DISTRICTS

INDUSTRIAL SURVEY of SUSANVILLE and LASSEN COUNTY, CALIFORNIA

UTILITIES.

California Pacific Utilities Company (services in area)

Electricity:

Susanville	3181
Westwood	706
Herlong	706

Telephone:

Westwood	635
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Water:

Susanville	1978
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Charges: (subject to change)

\$1.00 minimum per month.

P.U.C. Schedule

D-1-L

0 - 600 cu. ft.	\$1.00	
next 1400 cu. ft.	.16-2/3	per 100 cu. ft.
next 2800 cu. ft.	.07	per 100 cu. ft.
over 30,000 cu. ft.	.05	per 100 cu. ft.

Commercial Righting

102 - or L-1-L

Supply from main transmission lines is 60 KVA

60 minimum per month.

First 50 KWH	3.7¢ per KWH
next 150 KWH	3.6¢ per KWH
next 800 KWH	3.3¢ per KWH
next 2000 KWH	2.6¢ per KWH
next 3000 KWH	1.8¢ per KWH
over 3000 KWH	1.7¢ per KWH

P.U.C. Schedule

General Heating and Cooking Service - C-1-L

\$3.00 minimum for first 7 KWH or less.

over 7 KWH	50¢ per KWH
first 150 KWH	3.5¢ per KWH
over 150 KWH	1.7¢ per KWH

Citizens Utilities Company of California

Telephone: May, 1958

Susanville	1828
Herlong, Doyle	185
Bunningville (Standish, Litchfield)	178
Bieber, Nubieber	145

Pacific Gas and Electric Company
Some in Big Valley

Plumas-Sierra REA:
Some on west edge of Honey Lake Valley

Manufactured gas utilities serving Susanville area are:

Richins Propane	Lassen Propane Company
Susanville, California	Susanville, California

Approximately 92,000 BTUs per company.

Excellent supply.

Good commercial rates -- approximately 17¢ or less

Fuel oils available from oil companies at prices comparable to other locations in California.

Water:

Susanville

Surface supply: 3 MOD Well supply - Unlimited
No treatment required for domestic supply.

Susanville

Sewage - treated, capacity - 500,000 gal. per day

SUMMARY

Susanville and the other population centers of the county are well served by utilities, including power, telephone, water, fuels, and sewers in some cases.

Sewage disposal is provided for the developed areas at Westwood and Herlong as well as at Susanville, and in most cases facilities for all utility services may be expanded to accomodate additional population, business and industry.

Utility rates are in general comparable to other sections of the State, and in some cases are surprisingly favorable. Utility company and Susanville City facilities are modern efficient, and designed for economic expansion.

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TRANSPORTATION.

Susanville on Southern Pacific Railroad freight line.

Buses: Greyhound between Reno, Nevada and Klamath Falls, Oregon (1 per day in each direction), Mount Lassen Motor Transit to and from Red Bluff -- Highway S.S.R. #36 and U.S. #395.

Herlong on Southern Pacific Railroad freight line -- Western Pacific passenger and freight.

Buses: Greyhound Bus -- U.S. # 395 Highway

Westwood on Western Pacific and Southern Pacific freight lines.

Buses: Mount Lassen Motor Transit Bus and Highway S.S.R.#36

Bieber on Great Northern Railroad and Western Pacific Railroad freight lines.

Buses: Redding - Alturas stage line -- Highway S.S.R.#299.

Doyle on Western Pacific Railroad freight line.

Buses: Greyhound Bus -- Highway U.S. #395

Other areas and points served by Southern Pacific Company in Lassen County are:

Lichfield	Wendel	Karlo
Crest	Horse Lake	Leavitt
Secret Valley	Madeline	Termo
Amadec		

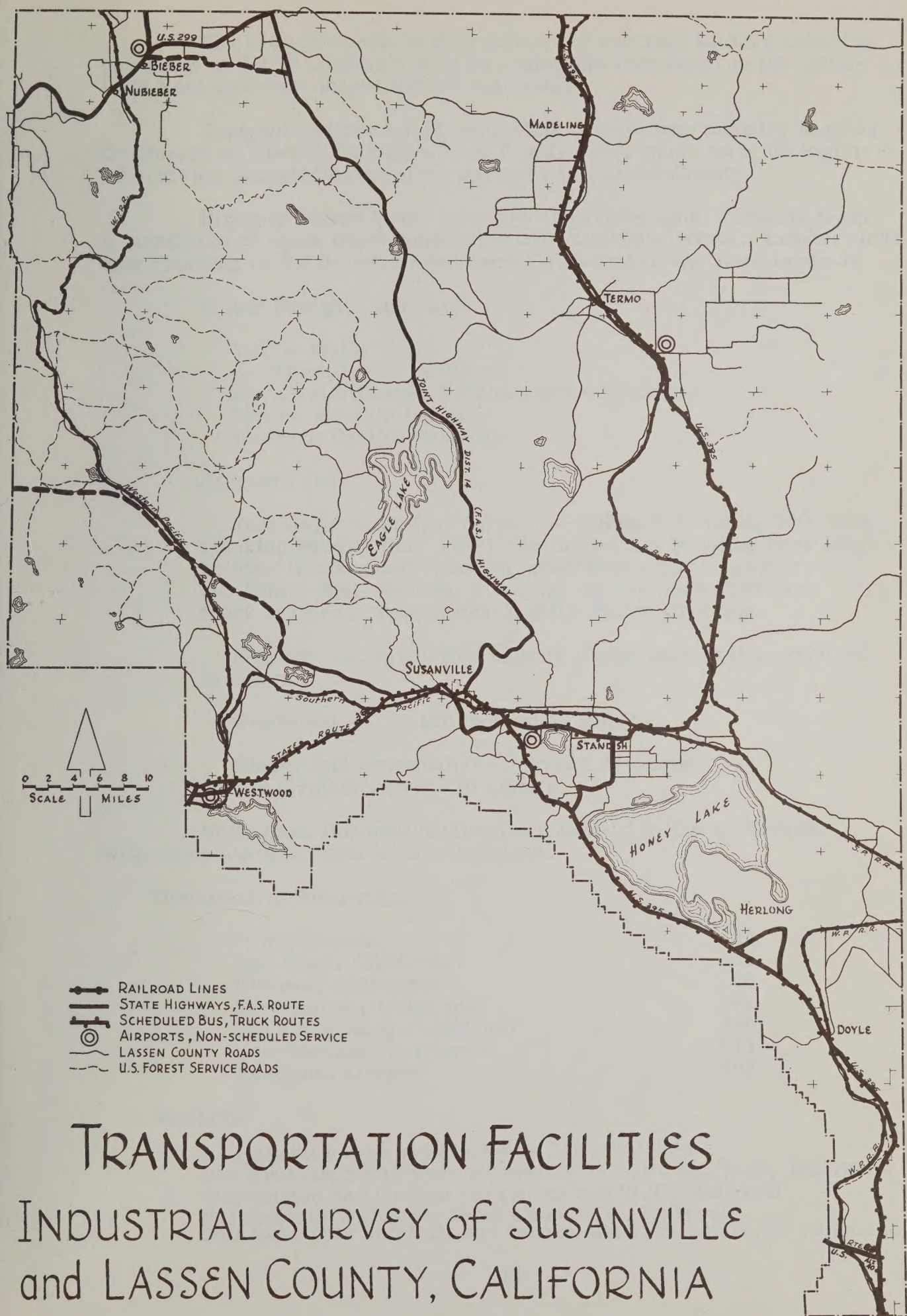
Other areas and points served by Western Pacific Company in Lassen County are:

Little Valley	Willow Springs	Dixie
Westwood Junction	Pit River	Halls Flat

Principal points are in the Truckee-Hawley group and have a very favorable freight rate to all sections of the country. The rate on lumber to all points west of Chicago, except for the Northern States, (the area west of St. Paul and Minneapolis), is lower than from the Redding, Klamath Falls, Sacramento or any other western lumber producing area. The rate to the southern area, Texas, etc. is also favorable, as much as .05 per CWT.

The rate to the eastern area is equalized and the same as any other lumber producing area.

The rate to California points (San Francisco, Oakland, Los Angeles, San Diego and their respective trading areas) is equalized with the rate from Redding, Klamath Falls, etc.



TRANSPORTATION FACILITIES

INDUSTRIAL SURVEY of SUSANVILLE and LASSEN COUNTY, CALIFORNIA

The area is serviced by a number of contract haulers covering pay loads of 3000# minimum with an applicable rate equal to the established carload rate except for off-rail points.

Contract haulers could adequately service any industry serving California or Nevada markets. As of April, 1958, there were 93 registered vehicles operated by for-hire carriers in Lassen County.

Highway routes in the area are at present quite adequate from a standpoint of truck transportation to all California points. Lowest elevation crossing of the Sierra in Northern California is via State Route 36.

Major Freight Lines are:

Valley Motor Lines
Southern Pacific Railroad
Nevada-California Transportation Company
Sierra Freight Lines
Western Pacific Railroad

Airports are:

Susanville Municipal Airport -- Class 2 A and E, 3000 foot blacktop runway (new 1957) Administration Building (new 1957) 24 hour weather information, ambulance, plane service, mechanic, fuel, beacon, boundary lights, permanent fire truck service. Twenty-one locally owned airplanes.

Herlong -- 8,900 foot runway (Army permission required to land).

Westwood -- 3,400 foot paved runway.

Bieber and Ravendale -- Class I Airports - twenty airplanes owned in County.

United and Bonanza Airlines are located in Reno, Nevada, with complete schedules in all directions.

Distances to Susanville:

Reno, Nevada	87
Red Bluff, California	107
Alturas, California	109
Sacramento, California	204
San Francisco, California	280
Los Angeles, California	615
Portland, Oregon	509

Markets:

Los Angeles area via trucks or S.P. Railroad
San Francisco Bay area via trucks -- S.P. and W.P. Railroads
Washington and Oregon via trucks and W.P. Railroad
Sacramento Valley via trucks and W.P. Railroad
Salt Lake City and East via trucks and S.P. and W.P. railroads.

ROADS AND HIGHWAYS

Although Lassen County contains a large land area of high and mountainous terrain, it is well served by a system of roads and highways which provide good access in all directions.

State sign route 36 extends from U.S. 101 near the Pacific Ocean to U.S. 99 at Red Bluff, and easterly through Westwood to Susanville and a junction with U.S. 395. It is an all-weather route clear for traffic when other Sierra routes may be closed.

U. S. 395 is an interstate highway extending from Oregon through Modoc County into Lassen County via Madeline and Termo to Susanville and southerly past Herlong, through Doyle and a connection with U.S. Alt. 40 (the Feather River Route) and on to Reno and U.S. 40. This route extends on southerly, providing a fast highway to Southern California and the Southwest.

U.S. 299 crosses the northwest corner of the county providing connections to Klamath Falls to the north and Redding and valley points to the west.

Joint Highway District 14 route from U.S. 299 and connections to the towns of Bieber and Nubieber southerly into Susanville has recently been improved and surfaced under the F.A.S. program and provides a good standard route between these population centers.

Another F.A.S. highway project, No. 1232, now under way and scheduled for completion in 1961, will provide a good new connection from the Susanville area past Feather Lake to Old Station and State Route 44 to Redding.

The above routes provide a basic road system which is complemented by the system of county roads and the Forest Highway system of the National Forest Service. All road planning is coordinated so that the very extensive Forest Highway five year program and other programs are related in construction timing.

RAILROADS.

Three main line railroads, the Western Pacific Railroad Company, the Southern Pacific Railroad Company and the Great Northern Railroad Company, provide a very complete service in the County.

Great Northern operates just seven miles of line from the northerly county line to Bieber Station, and ships out some lumber from that station. This line does, however, connect with the Western Pacific line at Bieber Station and thus provides rail service into the Northwest.

Western Pacific tracks run the entire north-south length of the County, entering at the south-east border from the Feather River route and Reno, and connects via Herlong, Susanville and Westwood, to Bieber Station.

Southern Pacific serves the Susanville and Westwood areas by the interconnected system.

Typical Freight Rates, Lumber, (Subject to change)

Westwood and Susanville to:	1/ Domestic	2/ For Export
(a) San Francisco, Oakland	37¢/100# + 6%	25¢/100# + 15%
(b) Los Angeles	64¢/100# + 15%	57¢/100# + 15%
(c) Fresno	44¢/100# + 6%	
(d) Chicago	\$1.20/100#	

1/ 34,000# carload min.

2/ 40,000# carload min.

GOVERNMENT LANDS AND FACILITIES

A. GENERAL:

Of the total land area of 2,910,720 acres in Lassen County, 1,409,134 acres, or 48.4% of the total are in Federal ownership. The Federal agencies controlling the greater part of these lands are The Forest Service, Bureau of Land Management and the U.S. Army.

B. SIERRA ORDNANCE DEPOT, U.S. Army.

The following information, which indicates the economic importance of this facility located upon the smaller of the three Federal land holdings, was provided by Arthur E. Kihke, Colonel, Ord. Corps, Commanding Officer of the Sierra Ordnance Depot.

1. The gross payroll for calendar year 1957 was approximately \$5,700,000. Local contracts for supplies, equipment and labor amounted to approximately \$775,000.00 during this period.

2. 979 civilians are currently employed.

- (a) The ratio of civilian to military is approximately 32::1.
- (b) Employment is stabilized at this point.
- (c) No increase or decrease is anticipated at this time.

3. Sierra Ordnance Depot's primary mission is receipt, storage and issue of Ordnance supplies and ammunition. The Depot has been designated as a "permanent installation" by the Department of the Army.

4. There are 588 Government-owned Housing units and 125 Title VIII (Wherry) Housing units available On-Post. Title IX (Off-Post) Housing contains 150 units.



- PRIVATE OWNERSHIPS
- NATIONAL FOREST
- PUBLIC DOMAIN
- NATIONAL PARK

PUBLIC and PRIVATE LANDS

INDUSTRIAL SURVEY of SUSANVILLE

and LASSEN COUNTY, CALIFORNIA

5. Commercial business activity essential to the operation of the depot are located On-Post. These activities are operated either directly or indirectly by contract with the Post Restaurant, a non-appropriated fund operated in accordance with Department of the Army regulations.

(a) Adjacent Off-Post establishments include:

- (1) A Super-Market.
- (2) A Service Station.
- (3) A Beauty Shop.
- (4) A Garage with Service Station.

The status of Off-Post business establishments is unknown.

6. California-Pacific Utilities Company furnishes electricity for all On-Post uses. Government-owned generators are on stand-by for emergency use. Off-Post electricity in the adjacent county area is provided by the Rural Electric Association.

7. The Fire Department at Sierra Ordnance Depot is equipped with three American LaFrance pumpers and two FWD brush trucks. Approximately twenty-five firemen are employed on a twenty-four hour shift basis.

8. The "Challenge", a weekly newspaper, is published by the Post Civilian Welfare Fund (a non-appropriated fund activity) at no expense to the Government. It is not an official publication of Sierra Ordnance Depot but is published in accordance with Department of the Army regulations. About 40% of the space is devoted to local news. Advertising space is purchased by Reno, Susanville and local firms.

9. Police protection and internal security are provided under the jurisdiction of the Provost Marshal. A police force of approximately forty civilian employees is maintained.

10. The Bank of America, Susanville, California, maintains a Branch at Herlong. This Branch is open daily on a part time basis.

11. Following is a list of clubs, social and service organizations currently active at this installation:

- a. 20-30 Club
- b. American Legion
- c. Veterans of Foreign Wars
- d. Homemakers Club
- e. Fort Sage Sportsman Club
- f. Diamond Mountain Pistol and Rifle Club
- g. American Federation of Government Employees
- h. Swingsters
- i. Two Parent-Teachers Organizations
- j. National Association for the Advancement of Colored People
- k. Business and Professional Women
- l. Veterans of World War I and Auxiliary
- m. Women's Missionary Society

- n. Military Wives Club
- o. Little League Baseball Club
- p. Herlong Elementary Teacher's Association
- q. Herlong Women's Bowling League
- r. Herlong Men's Bowling League
- s. Assembly 101, Rainbow Girls
- t. Scout Troop #18
- u. Cub Scout Pack #318
- v. Herlong Rocket Club
- w. Teen-Age Club

12. Herlong has a non-denominational Community Church which holds weekly Protestant and Catholic services. In addition, several small church groups have buildings and services of their own.

13. The U.S. Army Hospital at Herlong furnishes both in-patient and out-patient services to civilian employees and their dependents. Normally ten beds are available for occupancy. In an emergency this number can be expanded to eighty.

14. Educational facilities in Herlong include:

- a. Sierra Primary School, grades K-3, with adjacent Multi-purpose building.
- b. Herlong Elementary School, grades 4-8.
- c. Herlong High School, grades 9-12, with adjacent Multi-purpose building.

15. Out-door recreation at Herlong is limited to the community baseball field, a small playground at the Trailer Court, a small playground at the Youth Center, and the school playgrounds. The Multi-purpose buildings at the schools are available for group social and recreational activities. The theatre and bowling alley represent other recreational facilities.

C. BUREAU OF LAND MANAGEMENT.

More than one-half of all public lands in the County are under the jurisdiction of this Bureau. The following description of the use of these lands was provided by Mr. George G. Farris, Regional Manager, C-2 District.

The Taylor Grazing Act of 1934 incorporated the public lands in Lassen County into an organized Grazing District to be administered by the Department of the Interior. The Act provided for the regulation of grazing and utilization of this natural resources for the maximum benefit to the public.

Lassen County is served by a Bureau of Land Management District office located in Susanville, California. The District Range Manager in charge is authorized to administer the public lands in the district as provided under the Taylor Grazing Act.

There are approximately 731,187 acres of public lands in Lassen County which are mainly utilized for the grazing of livestock and wildlife and the production of woodland products.

Topography of Public Domain Lands

Generally rough and mountainous. A small percentage of public land consists of abandoned homesteads located on dry flats.

Vegetative Covering

Scattered tracts adjacent to the Lassen and Modoc National Forests contain merchantable pine timber. No cruise has been made to determine the volume of timber.

The balance of land is classified as dry native grazing. The browse plants are dominantly sage or related species. Western juniper is common. The understory consists of various herbaceous plants and grasses. At low levels cheat grass predominates. At high elevations an increase in rainfall sustains perennial type grasses such as Blue grass, Idaho fescue, Blue Bunch Wheat, Squirrel Tail and various species of needle grasses.

Cheat grass provides fair forage in the spring. Perennial grass and bitter brush are considered as the most valuable forage. The number of acres required to support one cow for one month varies from four to over twenty acres.

The Bureau now licenses on the average of 1,057 horses, 23,151 cattle and 21,670 sheep on the Public Domain in Lassen County. These livestock belong to about 300 ranches in Lassen and Modoc Counties.

Under the multiple use management plan a sufficient amount of forage on public domain is reserved for game animals.

Mining

A number of mining claims have been filed on public domain. Most of these claims are being worked for uranium. Data on the production from the mines is not available.

Various other type deposits of sand, gravel and rock are located on public domain. No survey has been made as to the extent and location of these deposits.

Range Improvement

Approximately 25% of the grazing fees is set aside by the Federal Government for range improvements. Licensees contribute another 25% of range improvement costs on the public lands.

Activities carried out under the range improvement program include stockwater development in form of reservoirs or wells, brush control, range reseeding, noxious weed control, access roads, drift fences and erosion control.

WATER QUALITY CONDITIONS.

Surface waters originating on the eastern slopes of the Sierra Nevada, and draining into the highly mineralized lakes of the Lahontan Drainage Basin, are generally of excellent mineral quality. All are calcium bicarbonate type waters, soft to slightly hard, and are satisfactory for all ordinary beneficial uses.

In Surprise Valley, the Alkali Lakes contain sodium chloride type water, with excessive concentrations of fluoride, boron, total dissolved solids, and arsenic, which preclude their use for domestic, irrigation, or most industrial purposes.

Water in Honey Lake contains high concentrations of sodium, bicarbonates, chlorides, and sulfates; and significant quantities of fluoride, boron, iron, and arsenic. This water is unsuitable for domestic uses or as a source of irrigation water supply. Long Valley Creek, tributary to Honey Lake, contains water less highly mineralized than the lake. However, it is unsuitable for such crops as deciduous fruit, most vegetables, and grasses, due to its boron content, which runs as high as 0.95 parts per million and its per cent sodium which is as high as 80.

Eagle Lake is a sodium bicarbonate type water of doubtful quality for unrestricted irrigation use. The lake waters are moderately to very hard, requiring softening to some degree for domestic use.

Ground water in Surprise Valley generally varies from a soft to slightly hard sodium bicarbonate to sodium sulfate in type. The sulfate water appears to be concentrated in the area near Middle Alkali Lake. They also contain excessive amounts of boron, high total dissolved solids, and per cent sodium which place them in Class III irrigation water. A toxic amount of arsenic was found in the analysis of water from one well. These waters originate from mineralized hot springs prevalent in the area with temperatures ranging up to 200 degrees Fahrenheit. The sodium bicarbonate type ground waters appear to be principally found in the vicinity of Upper and Lower Alkali Lakes. An excessive per cent sodium in these waters restrict its use for irrigation.

Ground waters in the Madeline Plains area are predominantly calcium or sodium bicarbonate in character. The majority of the wells sampled yielded moderately hard to very hard water. The mineral quality of these ground waters is generally excellent to good and fall within Class I in respect to irrigation use. Waters high in nitrates were found in several areas.

Water Quality Conditions (Cont'd.)

Ground waters in Honey Lake Valley are generally classified as fair to good but variable as to mineral composition. Waters to the north of Honey Lake are ordinarily sodium bicarbonate in nature, soft to moderately hard, and contain total dissolved solids ranging from 200 to 700 parts per million. However, water from a deep well in the Janesville area, in the immediate vicinity of Honey Lake, contains a very hard, sodium chloride water, with total dissolved solids exceeding 1,000 parts per million, and per cent sodium in the order of 60. Hot springs located near Wendel contain a sodium sulfate type water with high concentrations of chlorides and total dissolved solids, and a per cent sodium of about 90.

Ground water in the vicinity of Janesville and Wendel to the north of Honey Lake is Class III irrigation water, and generally usable for only the more salt-tolerant crops. Ground waters to the south of Honey Lake are generally of a sodium bicarbonate nature, soft to moderately hard, and contain total dissolved solids ranging from 200 to 400 parts per million, with the exception of ground waters found in the vicinity of the Sierra Ordnance Depot near Herlong. This latter area contains sodium sulfate type water, very hard, with total solids ranging from 400 to 800 parts per million.

Impairment of ground and surface water resources in the Lahontan Drainage Basin is caused primarily by discharges of domestic and industrial wastes. Domestic wastes in the principal ground water basins are ordinarily discharged to the ground water by means of individual septic tanks or cesspools.

Industrial development in Madeline Plains, and in Surprise and Willow Creek Valleys, is presently at a minimum. In Honey Lake Valley, the lumbering industry is of considerable importance, especially in the Susanville area adjacent to the Susan River. Mining operations are of minor importance.

Natural causes of ground water quality impairment include highly mineralized hot springs, and the inability of the closed basins of Madeline Plains and Surprise and Honey Lake Valleys to maintain a satisfactory salt balance. Salt balance refers to the condition wherein the quantity of soluble salts entering the water supply of a basin are balanced by an equal quantity of soluble salts being removed from the basin by surface or subsurface outflow.

Source: State of California Department of Water Resources, Division of Resources Planning - Northeastern Counties Investigation, Bulletin No. 58

WATER: Development History

The low precipitation on the areas suitable for farming makes irrigation mandatory in most localities. The first notice of claim to water was made in 1854 by Isaac Roop, who diverted the waters of Piute Creek to irrigate his land. The years that followed saw many claims filed and ditches constructed for use of water out of the Susan River and tributaries to Honey Lake. The period was fraught with disagreements and litigation, some of which extend down to the present day. The subject of much of the controversy centers around waters of Eagle Lake. The existence of this large body of water, some 1,000 feet above the valley floor, held an attraction for many as a source of irrigation water. One of the earliest of these was a C.A. Merrill, operator of a sawmill near Susanville, who saw potential wealth in the dry lands of the valley. Through Merrill's efforts in Washington, D.C., Congress passed in 1875 the predecessor to the "Desert Land Act", providing for the sale of desert lands in Lassen County. Work commenced immediately on a tunnel through the hills intervening between Eagle Lake and the valley, only to cease shortly due to financial difficulties.

Later attempts by other enterprisers met the same fate, until the early 1920's when promoters of the "Bly" irrigation project succeeded in partially completing the physical works and sold out to the Tule and Baxter Irrigation Districts, which bonded their lands to finance the purchase. Years of disappointment and failure that followed were caused by lack of water, alkali troubles, and slow development of land. Financial difficulties resulted in dissolution of the Baxter Creek Irrigation District, and bankruptcy for the Tule Irrigation District. The latter district is still in receivership. The Lassen Irrigation Company, a mutual water company, provides water to irrigate 5,000 acres near Standish. The Big Valley Irrigation District, formed in 1925, has been inactive until recently.

AGRICULTURE.

Agriculture in Lassen County has been almost entirely devoted to the support of livestock. The beef industry has been an important segment of the economy since the early settlement of the area. The large tracts of public land for grazing makes livestock raising profitable and forage crops for winter feed are also produced.

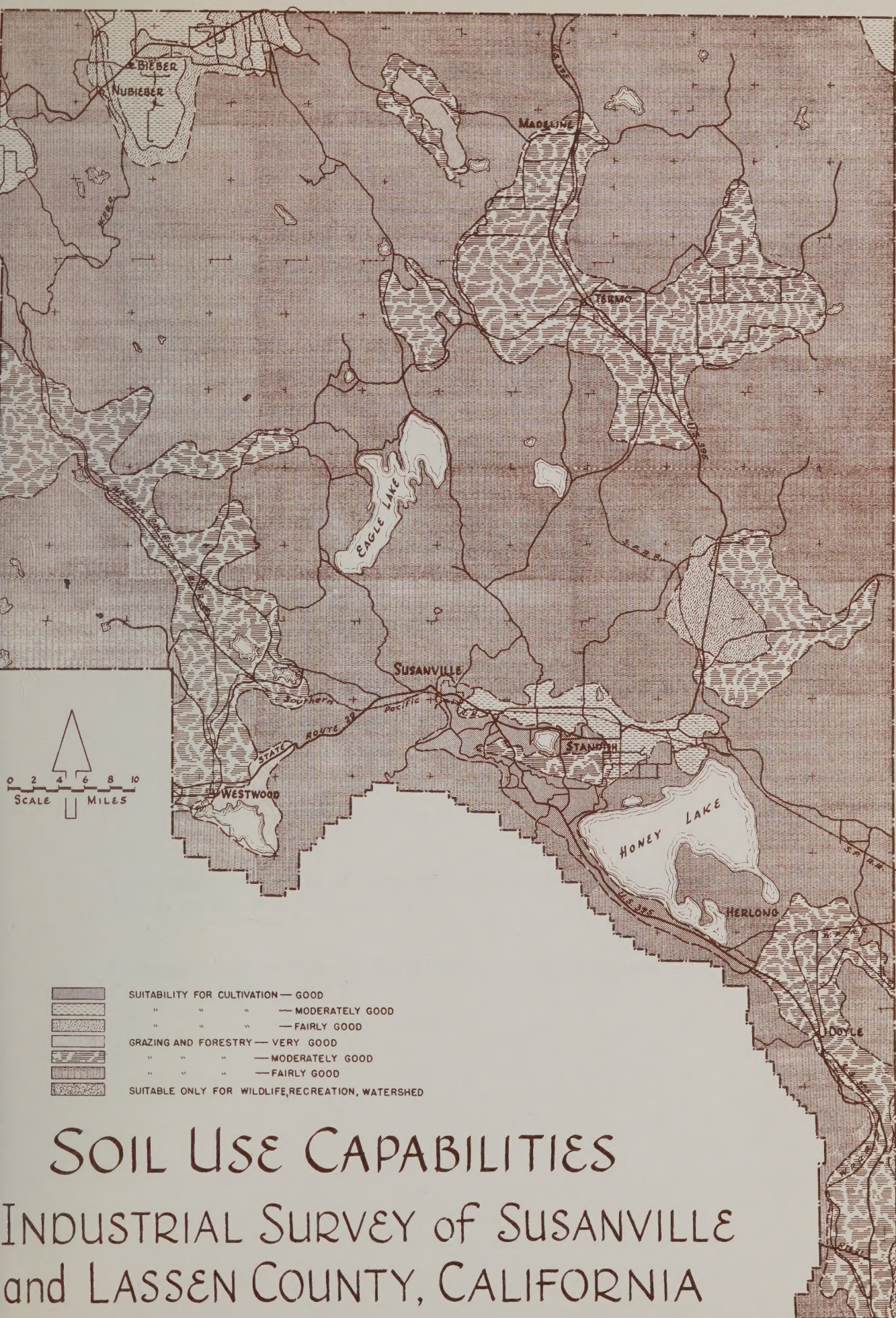
Livestock are now run to the limit allowed on the range lands. Their numbers can only be increased if irrigation is extended and sagebrush cleared. Such possibilities are being studied in connection with the Allen Camp Dam project and investigation of underground water supplies in the area. There is a special problem of deer competing with cattle and sheep for the available range land.^{1/} Increases in the deer population coupled with drought, overgrazing and abuse of the range has actually resulted in range deterioration and decreased productivity of the land in recent years.

Other crops are limited by the short growing season as well as the shortage of water. However, if irrigation were extended, the small potato crop could be increased and early variety beans, silage corn, onions, garlic, sugar beets and seed crops could be grown. Crops which have been grown in Honey Lake Valley and Susanville include the following:

Watermelons	Rhubarb	Yellow Clover
Honey Dew Melons	Beans	Red Clover
Cantaloupes	Raspberries	Apples
Carrots	Strawberries	Pears
Potatoes	Cabbage	Cherries
Peas	Celery	Onions
Corn	All types of grain	Asparagus
Tomatoes	Sudan Grass	Alfalfa
Peppers	Various Types of Clover	Apricots
Table Beets	Permanent Pasture	Peaches
Sugar Beets	Smooth Brome	Artichokes
Swiss Chard	Orchard Grass	

As is the case in much of California, water is the limiting factor in agricultural productivity.

^{1/} See: Land, Livestock and Deer in the Milford-Doyle Area of Northeastern California, Office of the Farm Advisor, Agricultural Extension Service, Susanville, California, 1951.



SOIL USE CAPABILITIES

INDUSTRIAL SURVEY of SUSANVILLE
and LASSEN COUNTY, CALIFORNIA

GROSS VALUE OF PRODUCTS, 1957

Field Crops - - - - -	\$ 2,542,424.40
Livestock and Wool - - - - -	3,920,118.00
Poultry and Eggs - - - - -	75,475.25
Dairy Products - - - - -	100,234.60
Fruits and Vegetables - - - - -	14,340.00
Lumber - - - - -	5,935,050.00
Apiary - - - - -	5,815.16
Nursery - - - - -	2,100.00
Government Payments - - - - -	103,000.00
TOTAL - - - - -	\$12,698,557.41

PREVIOUS CROP REPORTS PREVIOUS CROP REPORTS

1950 Grand Total - - - - -	\$23,652,100.69
1951 Grand Total - - - - -	26,962,081.92
1952 Grand Total - - - - -	24,717,898.18
1953 Grand Total - - - - -	21,133,764.28
1954 Grand Total - - - - -	18,816,407.80
1955 Grand Total - - - - -	18,461,704.57
1956 Grand Total - - - - -	14,884,078.24
1957 Grand Total - - - - -	12,698,557.41

Lowered production of lumber accounts for the decrease in the Grand Total in the last few years.

Source: Lassen County Department of Agriculture - Agricultural Crop Report, 1957

MINES AND MINERALS

Peter Lassen discovered gold in Honey Lake Valley in 1855, which discovery indirectly led to the formation of the "State of Nataqua" in 1856 and the Sagebrush or Boundary Line War waged by settlers in the early 1860's.

From a geological standpoint the County is not favorably situated for the development of deep-seated mineral deposits such as are found in the Sierra Nevada to the south. However, several small productive districts have been developed. Careful prospecting may reveal other mineralized areas of commercial value. A few uranium prospects appear promising.

As reported by the California State Division of Mines, the total value of mineral production in Lassen County during 1956 was \$656,227. The value of sand and gravel was \$463,439. Other minerals, including granite, crushed stone, tungsten concentrates and volcanic cinders, were valued at \$192,788. (Source: Dept. of Water Resources Bulletin No.58).

In 1944 a report on iron ore deposits in Lassen County was prepared and submitted to the Board of Supervisors by John D. Hubbard, E. M. Following are excerpts from his report:

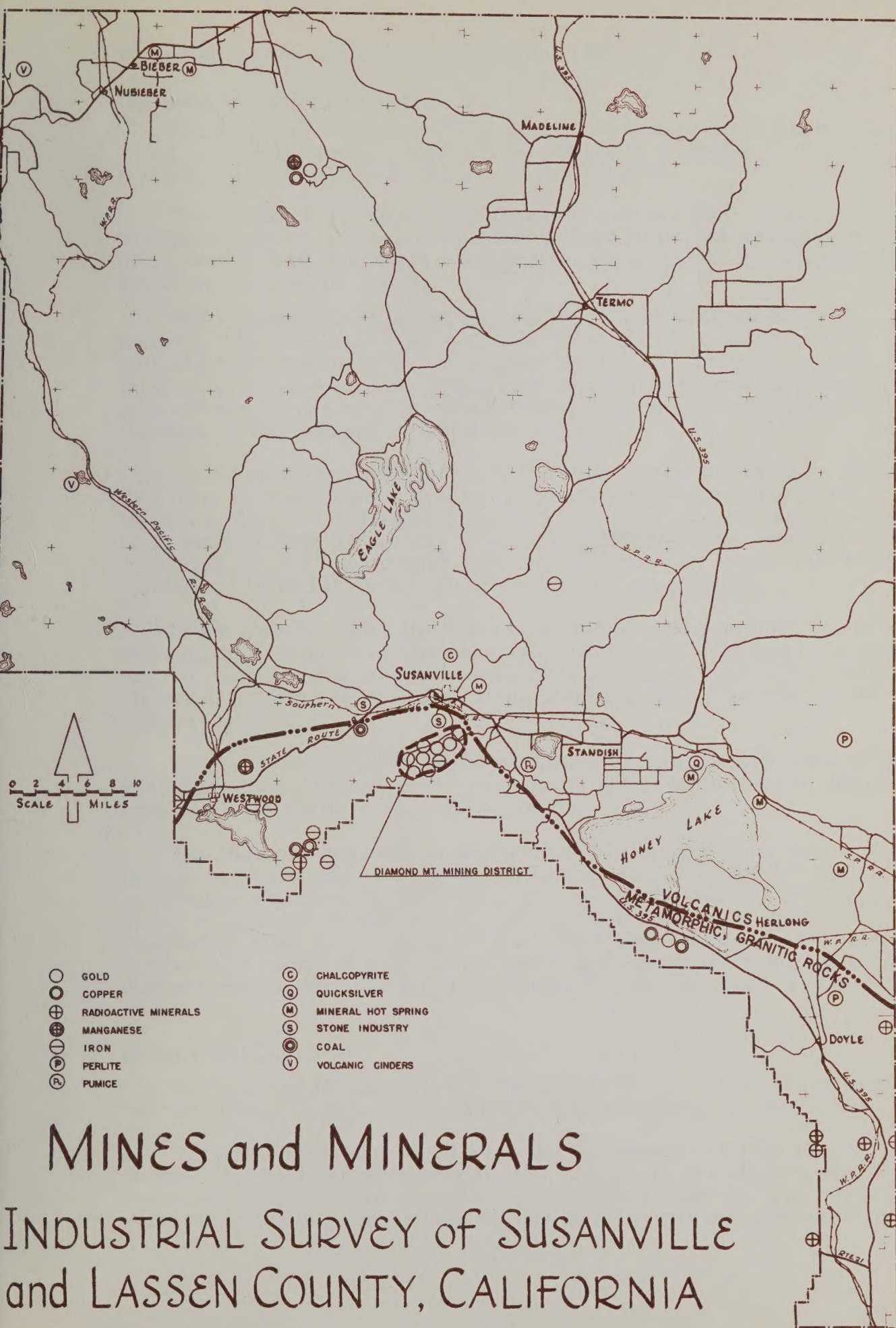
1. "There is a great iron ore lode that runs through some nine sections in Lassen County, in the Diamond Mountain-Moonlight Valley district, and in and through some eleven sections in Plumas County where it finally dives under the lava cap in the north-east part of that county. A total of some twenty miles this lode crops out in places all along, and much float iron ore is found. Some of this iron ore is of the highest grade possible, running up to a little over 70% iron. The Madnetite in Moonlight Valley is high grade furnace ore, and is remarkably free of impurities. This lode is of great importance and I will recommend it to the attention of the U.S. Bureau of Mines for some core drilling.

Very little prospecting work has been done on the iron ore and this makes an estimate of tonnage difficult. The iron ore croppings are exactly similar to quartz croppings in this State, from which many excellent mines were finally developed. When a market exists for iron ore, the same course, with the same results will follow for this metal."

2. "In all, Lassen County has a good showing of iron ore deposits."

3. "Other minerals found in Lassen County are: annabergite, azurite, bornite, chalcocite, copper, copper glance, cuprite, diatomaceous earth, epidote, erubescite, garnet, gold, gypsum, hematite, jefferisite, malachite, mesolite, mica, red copper ore, red-ruthite, selenite, specular hematite, barium, iceland spar, and much feldspar, and serpentine containing magnesium. Also chrome and manganese."

The State Division of Mines, in its Journal of Mines and Geology dated October, 1936, reported on mines and minerals of Lassen County.



MINES and MINERALS

INDUSTRIAL SURVEY of SUSANVILLE and LASSEN COUNTY, CALIFORNIA

Following are excerpts from that publication:

Diamond Mountain District.

The Diamond Mountain mining district is located in southern Lassen County near the boundary and is in the SE 1/4 of Township 29 N., R 11 E. and SW 1/4 of Township 29 N., R. 12 E., M.D.M.

Topographically, the district is situated on the lower north slope of the Sierra Nevada between the head of Golden Run creek and Lassen creek and includes Gold Run valley. Susanville, the county seat, is situated about six miles to the north.

Placer operations started with the late fifties when an influx of miners, following after Peter Lassen, found rich placers on Lassen, Hill and Gold Run creeks. These streams supplied much water, and in several years over \$200,000 in free gold was obtained. Chinamen followed the early placer miners but were soon forced out by prospective farmers who then began to settle the region.

To the west, the Gold Belt vein has been stoped during early operation from a lower tunnel. Specific production figures are not known. However, Mr. G. N. McDow estimates that about \$20,000 was produced from the primitive processing of ore from the Gold Belt, Neff and Union veins collectively. In addition, the Union property is reported to have produced \$50,000 in pocket gold from surface diggings.

In the last few years there has been some attempt to mine in the district, but, so far, insufficient mine development work has been done to justify large-scale mining and milling operations. Recently, several claims have been surveyed for patent in anticipation of yielding latent mineral deposits.

The ore deposits of the Diamond Mountain mining district are of two general types: (1) vein type of gold-quartz deposits enclosed in granitic rocks and (2) auriferous gravel deposits.

The Diamond Mountain district, north of Diamond Mountain, is known to have produced some lode-gold, and sampling of most of the veins in the district substantiates this fact. The geologic conditions for the economic occurrence of gold are favorable. However, to the present time insufficient mine development work has been done in this district to show commercial bodies of ore. Either small high-grade or large low-grade deposits may be possible but indications show that the latter are the more likely.

Hayden Hill District.

The veins of Hayden Hill are confined to the area west of the summit, and the richest of them occur in the long even-sloping southwest side.

The most productive veins were the Providence, Golden Eagle, Juniper, Brush Hill and Hayden Gulch. There are two distinct sets of veins, one striking about N.68°W. and the other N.38°E. The northeast veins appear to be younger than the northwest veins, and movement along

the Providence vein has displaced the Golden Eagle, as at the northwest end of all the levels the Golden Eagle swings to the north on approaching the Providence. The two northeast veins, near the main shaft of the Golden Eagle, clearly cut that vein.

Copper:

The southern portion of Lassen County is not far from the Engels mine in Plumas County, which has been a very large producer of copper. Similar mineralization is to be found in the southern portion of Lassen County, but to date, the deposits are only in the prospective stage and very little production has resulted.

Hot Springs:

Amedee Hot Springs are at Amedee in Honey Lake Valley. The water is saline, and the temperature is 172° to 204° F.

Bassett Hot Spring is 2-1/2 miles east of Bieber in Big Valley. A sulphate water flows at a rate of 175 gallons per minute. The temperature is 173° F.

Highrock Springs is 10 miles southeast of Amedee. The flow is 525 gallons per minute, and the water is used for irrigation.

Shaffer Hot Springs are at Hot Springs Station on the Nevada, California and Oregon Railroad (now Southern Pacific). Temperature is 204° F.

Stone Breaker Hot Springs are eight miles southeast of Bieber in Big Valley. Temperature is 165° F.

Stone:

Lassen County is in a region largely covered by lavas, and a very large number of places are available where lavas and tuffs can be quarried. Granitic rocks are available along the southern county line.

Uranium:

The Division of Mines Mineral Information Service publication of May 1, 1955, indicates: "In the Chilcoot area of eastern Plumas County and bordering on Lassen County secondary uranium minerals occur with malachite and other copper minerals of the oxidized zone, in granitic rocks. Uranium minerals recognized in this area include autunite, torbernite, meta-torbernite, and zeunerite."

Two areas of occurrence within the County, in the extreme southeasterly corner, are designated as: 1. Cornelia group, and 2. Buckhorn group.

Deposits in the area rare described in Division of Mines Special Report 49, January, 1946.

Mineral Production, Value.

Value of total recorded output (1880 to 1954, incl.)	\$3,524,917
Value of 1954 recorded output (stone, sand, gravel, cinders)	\$88,904
Value of 1955 output (stone, sand, gravel, cinders)	\$ 301,625
Value of 1956 output (stone, sand, gravel, cinders)	\$463,439
(misc. stone, cinders)	\$192,788
	\$656,227

TIMBER.

Timber production has in the past been the strong economic resource of Lassen County, providing employment and income which has greatly contributed to the growth and development of the County.

It is expected that, with the levelling off of cutting, readjustment of major timber operations, and extensive planning for sustained yield type future operations, timber production and processing of timber products will provide a perpetual resource for the sound economic future of the County.

This situation has been encouraged by the cooperation of public agencies and private owners in planning and research, and predictions for the future are most promising.

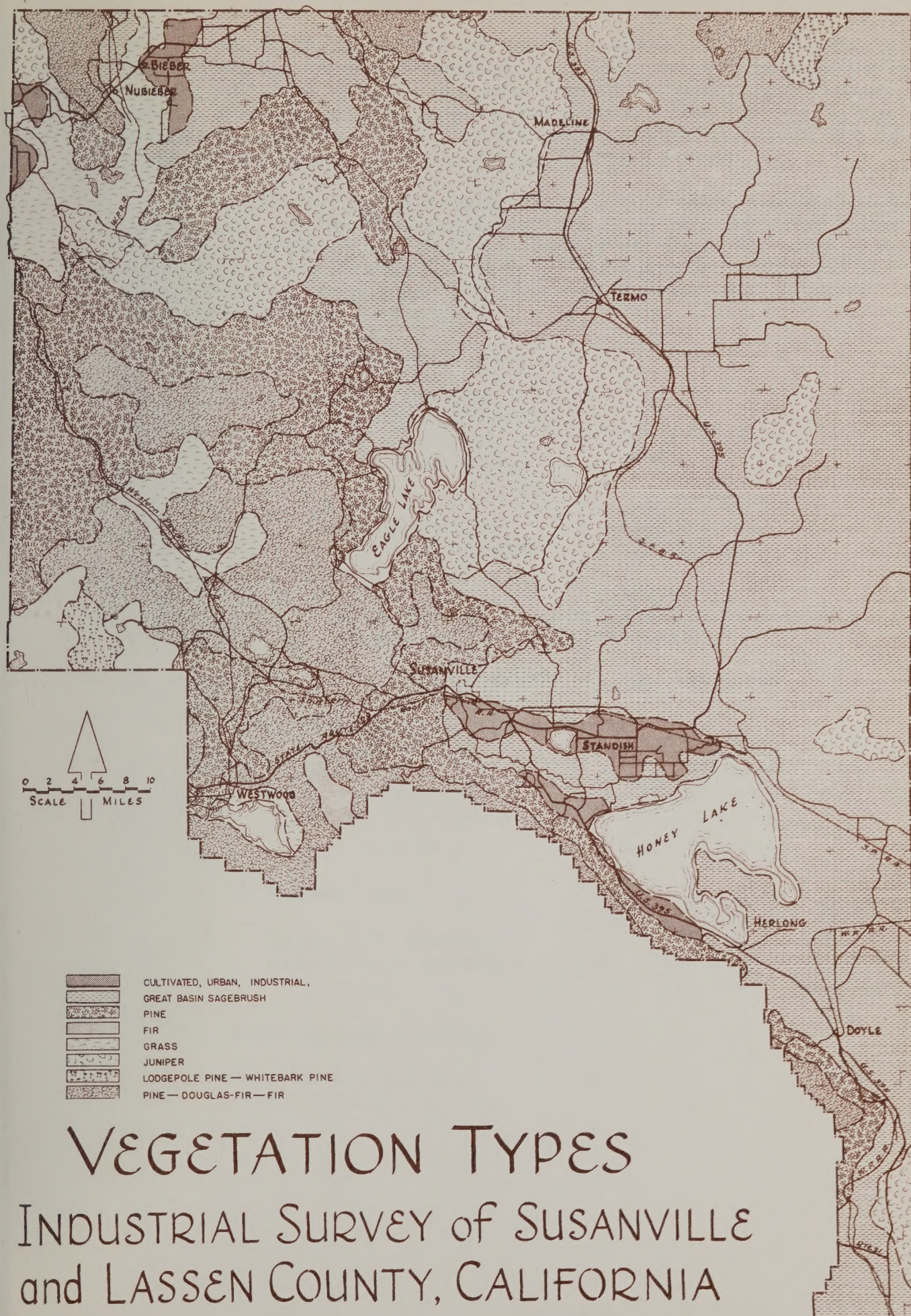
Tabulation of timber data related to volumes of stands, cutting and production on a County basis is difficult because such data is compiled on different bases, and figures from some private owners are not available. The following is general in some respects, but considered quite adequate for the purpose. This data was supplied through the cooperation of the office of the Lassen National Forest Supervisor.

Lassen National Forest (Excerpts from data provided.)

It is understood that working circle boundaries do not necessarily follow county lines. In the case of Lassen County there are two working circles of the Lassen National Forest involved; the Eastern Lassen Working Circle and the Butte Creek Working Circle. The Eastern Lassen Working Circle is almost entirely within Lassen County. Only a portion of the Butte Creek Working Circle is located within Lassen County. In the data that follows we have included only those statistics which apply to the area within Lassen County. This involved a segregation of the data for the Butte Creek Working Circle between Lassen County and Shasta County. In making this distribution we have relied to a large extent on general knowledge and have not spent a great deal of time on detailed research.

(a) Geography. Generally speaking, the area is level and rolling, making for easy logging conditions. It is classified as an "eastside" type; rainfall is lighter than on the westside, resulting in stands that are predominately ponderosa pine and averaging smaller volumes per acre than on the westside.

(b) General Considerations. One of our management objectives is to cover the remaining virgin stands as rapidly as possible, removing those trees that are most susceptible to loss. This results in removing about one third of the total volume of the stand on the average. A full silvicultural treatment of the stand is being deferred until the second cutting cycle.



For the first cutting cycle the allowable annual cut is a rate that is 1-1/2 times the estimated annual growth. This policy further results in covering the working circle at a more rapid pace, resulting in further salvage of losses and more rapid conversion of timber stands to a fully productive condition. For the second cutting cycle it is planned that the allowable annual cut will be the estimated annual growth.

In the Eastern Lassen Working Circle 8 to 10 years remain the first cutting cycle. In the Butte Creek Working Circle 15 to 20 years remain in the first cutting cycle. However, most of the remaining virgin timber in the Butte Creek Working Circle is in Shasta County, and it is very possible that for the portion situated in Lassen County the end of the first cut could come sooner.

(c) Area classification.

(1) National Forest Land

A. Commercial Forest Land

Uncut - operable	85,000 acres
inoperable	None
Cutover	185,000 acres
Other (deforested)	17,000 acres
Total available	<u>287,000 acres</u>

Reserved None
(Any reserved area, by definition, is classified as non-commercial forest land.)

Total productive 287,000 acres

B. Non-commercial Forest Land

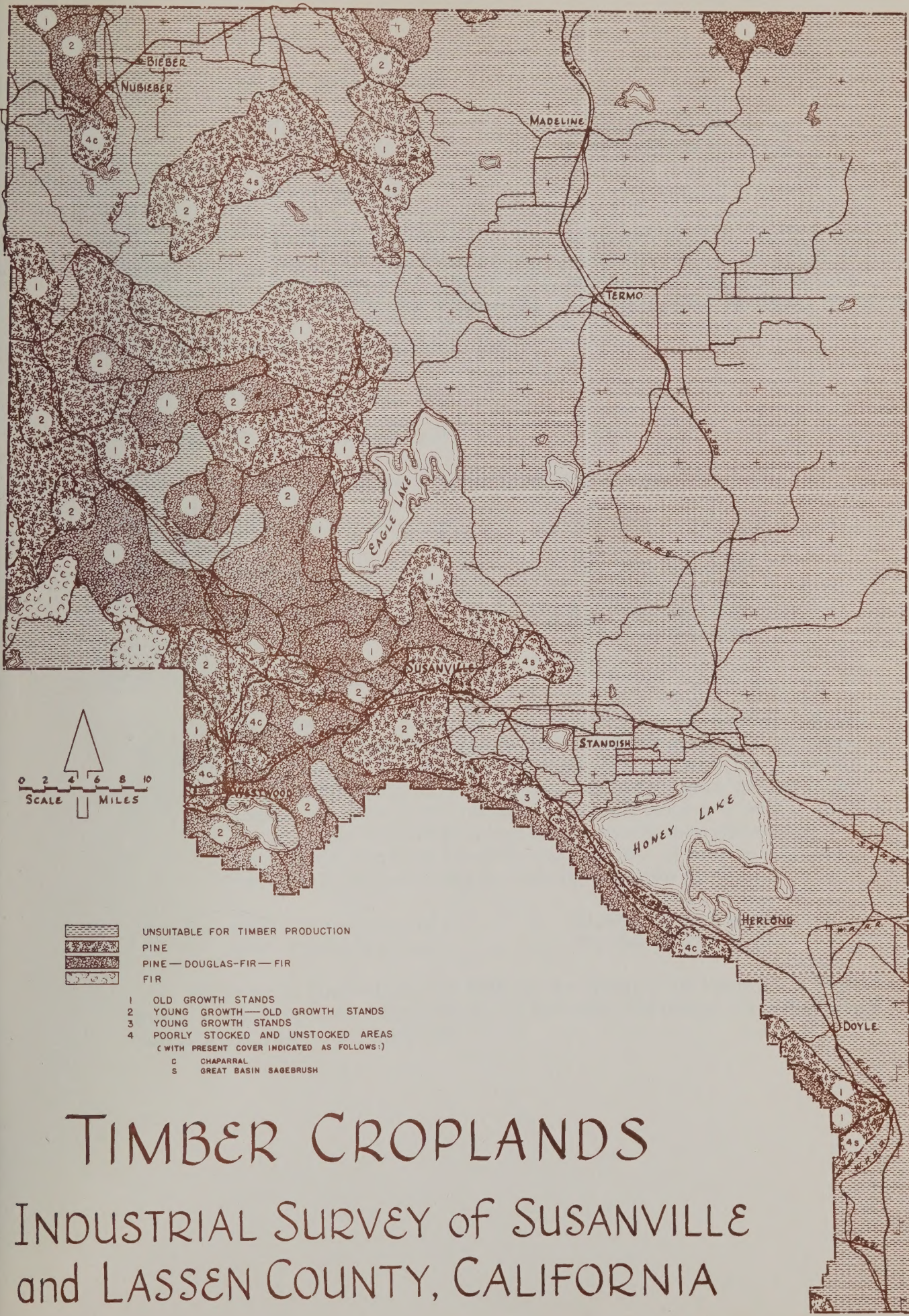
Not reserved	24,000 acres
Reserved	<u>3,300 acres</u>
Total	27,300 acres
Non-timber	<u>82,000 acres</u>
Total	109,300 acres

(2) Private Land

	<u>Virgin</u>	<u>Cutover</u>	<u>Total</u>
Inside N.F. Boundary	--	99,400	99,400
Outside N.F. Boundary	<u>5,000</u>	<u>134,200</u>	<u>139,200</u>
Total	5,000	233,600	238,600

(d) Annual Average Growth.

100 - 115 b.f. per acre
30 MM feet b.m.



TIMBER CROPLANDS

INDUSTRIAL SURVEY of SUSANVILLE and LASSEN COUNTY, CALIFORNIA

(c) Volume.

(1) National Forest

Virgin	1,130,000 M ft. b.m.
Cutover	1,267,000 M ft. b.m.

(2) Private Land

No figures available. The principal private timber owners are Fruit Growers Supply Company, 707 West Fifth Street, P.O. Box 2706, Terminal Annex, Los Angeles 54, and Shasta Forests Company, P.O. Box 898, Redding, California.

(f) Length of cutting cycle.

20 to 30 years.

(g) Allowable Annual cut.

47 MM for balance of first cutting cycle.

(h) Mill capacity in area.

Burney	100 MM annually
Little Valley	20 MM annually
Susanville	110 MM annually
Total	230 MM annually

(i) Transportation.

Since the bulk of the area has already been cutover a fairly complete network of roads and railroad grades in existence. The Western Pacific Railroad passes through the Eastern Lassen Working Circle. State Highway #36 traverses the southern portion of Eastern Lassen Working Circle. All three of the manufacturing points mentioned above are located on common carrier railroads. A map is enclosed which will help clarify the transportation picture.

(j) 1955 cutting record	21,000 M feet b.m.
1954 cutting record	62,000 M feet b.m.

Because of the volume of data on the subject of timber, a supplement to this report is suggested, to include additional information of substantial value and interest.

RECREATION.

Lassen County contains a great wealth of natural recreation resources in a wide range of types. These include hundreds of lakes and streams, volcanic features, hunting and fishing, water and winter sports, together with accessibility and climate to make enjoyment of these features possible to a high degree.

Recreation areas include many thousands of acres which are in public ownership and within which development of access roads and recreation facilities is proceeding according to long range plans. The public agencies concerned are Lassen Volcanic National Park, U.S. Forest Service and Bureau of Land Management.

Lassen Volcanic National Park.

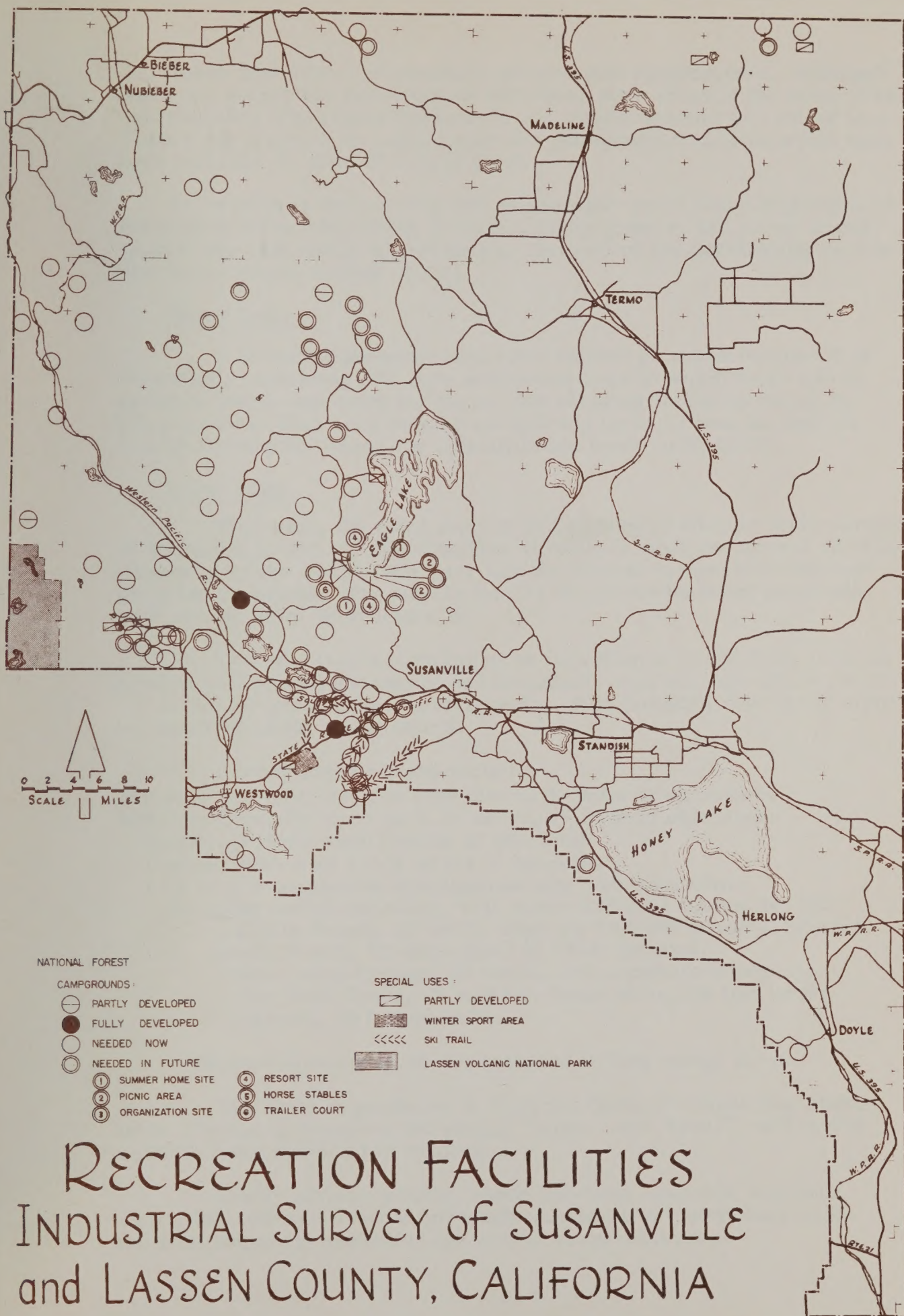
This famous park is located partly within the southwesterly corner of the County with access from State Route 36 at Chester and Mineral.

Lassen Volcanic National Park was created to preserve Lassen Peak, the most recent of the active volcanoes in the United States. This impressive peak towers over the southernmost part of the Cascades in this magnificent mountain area. It is surrounded by innumerable glacial lakes, mountain meadows, snow-fed streams--all in an altitude to afford enjoyment and recreation to its visitors. One finds in this National Park more than the results of volcanic activity within a single mountain. From the well-paved Lassen Peak Highway one can view boiling mud pots, solfatara, the Devastated Area and Chaos Jumbles. Colorful heaps of lava and volcanic ash blend with the verdure of forest, meadow, and stream. Well-marked trails lead from lake to lake, from stream to stream to attract the vacationist. The Peak is named for Peter Lassen, Danish pioneer explorer and immigrant leader. He was killed by Indians in 1859 and is buried near Susanville.

Accommodations for the visitor who wishes to prolong his stay and enjoy these wonders are available in the Park. Modern cottages, rowboats and miscellaneous supplies and services are obtainable. The Lassen National Park Company, authorized Government operator, with headquarters at the Manzanita Lake Lodge, provides the visitor with the necessities and comforts for a pleasant vacation. Sleeping quarters range from the plain to the luxuriant -- housekeeping and hotel accommodations are available. Dining room, lounge, lunch counter, fountain, service station and grocery store services provided at government supervised prices.

Lassen National Forest.

A great part of the natural recreation land lies within the Lassen National Forest, which administers and develops the lands for the public. Primary land uses include timber, water, soil and wildlife conservation and development, and the improvement of grazing and recreation lands.



RECREATION FACILITIES

INDUSTRIAL SURVEY of SUSANVILLE

and LASSEN COUNTY, CALIFORNIA

These activities are carefully planned and programmed. Although funds for recreation development have been very short in the past, it is expected that "Operation Outdoors", and public demand will result in a stepped-up program to complement the substantial facilities which have been installed in spite of lack of funds.

Recreation is the priority use in roadside zones along highways, at recreation lakes and fishing streams, camp grounds and picnic areas, special use and winter sports areas. Several of the outstanding recreation areas are described below.

Silver Lake.

A beautiful mountain lake area located 25 miles northwest of Westwood, containing 100 acre recreation area in which there are 52 summer homes and sites for more, and camping facilities for about 200 persons. This area is used exclusively by local people, and the Forest Service has plans for rehabilitation work on facilities.

Eagle Lake.

This lake, the third largest in California, offers a wide variety of attractions, and will draw hordes of visitors when the access road is improved by the County this year and the Forest Service development program proceeds. The lake is just 14 miles northwest of Susanville with access from State Route 36.

The lake lies in a valley at an elevation of 5,100 feet, is in an area of exceptional geological and biological interest, and offers extensive areas for recreation improvements. It is possible that an air strip be installed on the sandy beach.

Forest Service plans include:

160 acre homesite area on east shore, $1\frac{1}{2}$ mile of shoreline.

120 acre homesite area on S.W. shore, $1\frac{1}{2}$ mile of shoreline.

2 camp grounds with 3 miles of shoreline

1 picnic area with $1\frac{1}{2}$ miles of shoreline.

1 25 acre organization development site with shoreline.

Camping and picnic sites, with water and rest rooms include:

Gallatin Beach, 23 units, capacity 200-300 persons (picnic).

South Beach, 10 units (dev. in 1958) (picnic).

Eagle Camp Ground, 55 units, 40% complete (camping).

Eagle Nest Tract, 42 summer home sites, 32 lots under permit, 20 homes built.

Additional developments are included in long-range plans.

The State Department of Fish and Game is conducting studies in an attempt to preserve the unique "Eagle Lake Trout", and to find suitable trout species for stocking.

Gently sloping shores, sandy beaches, open and timbered shoreline, sheltered coves and slight surface level variations make the lake unusually attractive for varied recreation uses.

Caribou Peak Wild Area.

This area, lying between the National Park and Silver Lake, contains 40,000 acres of rugged wild area spotted with hundreds of lakes and miles of fishing streams. This is a great reserve recreation area for which a substantial improvement plan has been drawn. The Susan River, which runs through the area, is undergoing stream improvement work to improve fish conditions from Silver Lake to Clover Valley. A county road parallels the stream for miles, and a string of camping and picnic sites will be developed along this strip. Sites at numerous lakes and along the better streams are also planned.

Crater Lake Area.

This is a spectacular area including the crater on the top of Crater Mountain which will be devoted to recreation uses when present logging operations are completed.

General.

In addition to the above, many small hunting and fishing camps are scattered throughout the Forest lands, and many more are planned so that the public may enjoy the excellent sport in the more remote areas.

Winter sports facilities are found in the National Park, and at Coppervale 18 miles west of Susanville on Highway 36. Fredonyer Ski Trail provides for cross-country skiing. Natural ponds in a number of locations are used for ice skating.

Literally thousands of deer are taken each year by hunters from all parts of the state. Lassen County has one of the biggest deer herds known. The sage brush country and the timbered areas approaching the Eastern slopes are noted for the Rocky Mountain Mule deer, commonly known as Mule deer. The Columbian Black Tail, commonly known as black tail, are found in the timbered areas leading toward the Western slopes of the county.

There is a yearly season on bear hunting running approximately two months, and usually coinciding with deer season. Antelope hunts are held at the discretion of the Fish and Game Commission.

A variety of ducks and geese may be found on the lakes and tules, sage hen in the brush areas, both valley and mountain quail, pheasant and mourning doves.

Fishermen can find an almost unlimited variety of fish and fishing. The Caribou Primitive Area contains such well known lakes as Caribou, Silver, Butte, and Juniper and literally hundreds of smaller unnamed lakes where fishing is excellent. For Bass, Crappie, Pumpkin Seed, and Cat-fish the sloughs and ponds of the Litchfield-Standish area and both Little Valley and Ash Valley can be fished successfully. There are many smaller streams, but for river fishing, both the Pit River

and the Susan River are well known. Many varieties of trout will be found all over the county, including Rainbow, German Brown, and Eastern Brook.

It is possible that one or more State Parks may be established in the County to provide additional areas for public use, that such historic sites as Roop Fort and the Peter Lassen monument be made State Historic Monuments, and that the Lassen Trail be made a part of the State Riding and Hiking Trail System.

Private lands offer commercial and private recreation development opportunities, and areas such as Lake Almanor, a P.G. and E. Company reservoir may become intensely used recreation sites.

Recreation is possibly the greatest future resource of the County. It is being wisely safeguarded and developed according to coordinated plans, and this situation must be continued into the future for mutual benefit and enjoyment.

CITY OF SUSANVILLE

Susanville is the county seat and only incorporated city in Lassen County. It is located in a beautiful natural setting on the Susan River in a partial bowl of mountains which shelter its valley development area from the winter storms.

Susanville is a modern city with an area population of about 7,500 persons and 2,200 households, and an estimated 1958 population of about 5,300 persons within the City limits.

Climate.

Elevation: 4,152 feet

Average annual precipitation: 20.05 inches.

Average mean temperature: 49.9 degrees.

Average max. temp. (July): 85.5 degrees; (Jan.): 39.6 degrees.

Average min. temp. (July): 50.7 degrees; (Jan.): 21.2 degrees.

Government.

Type: Council - Mayor, 6th class city.

1/ Assessed Valuation, 1957 - 58: \$4,107,760.

Tax Rate: 1957-58: \$1.78 per \$100 assessed valuation.

Sales Tax: State Sales and Use Tax: 3%.

Sales Tax: County Sales Tax: 1%.

1/ Assessed valuation is approximately 25% of market value.

Fire Protection.

Personnel: Chief, engineer and 31 volunteers.

Equipment: 4 modern trucks, 1 pickup; trucks are radio equipped pumps.

City has complete coverage with high pressure water mains and hydrants, and Gamewell alarm boxes.

Board of Fire Underwriters rating: Class 4.

Police Protection.

Personnel: Chief and 6 men.

Equipment: 2 patrol cars and three wheel cycle radio equipped, communications via City radio system in City Hall.

Power and Water.

Supplied by California Pacific Utilities Company.

Power: New 60 KV transmission line and distribution system are adequate to meet all present and future demands.

Rates are quite reasonable (see page 11).

Water: Adequate supply, storage and distribution of good quality water at reasonable rates;

Monthly min. charges: (subject to change).

5/8 in. meter: \$1.00; 1 in. meter: \$2.50; 2 in. meter: \$5.00

4 in. meter: \$15.00; 5 in. meter: \$20.00; 6 in. meter: \$25.00

Monthly quantity rates:	
first 600 cu.ft.:	16-2/3¢ per 100 cu.ft.
next 1,400 cu. ft.:	12¢ per 100 cu.ft.
next 28,000 cu. ft.:	7¢ per 100 cu.ft.
over 30,000 cu. ft.:	5¢ per 100 cu.ft.

Telephone: Service supplied by Citizens Utilities Company, with complete coverage of area. Rates are:

Business; 1 party: \$9.00, 2 party: \$7.50, suburban: \$7.50
 Residence; 1 party: \$5.75, 2 party: \$5.00, suburban: \$5.00

The company has been engaged in an extensive improvement program and now provides excellent facilities.

Sewerage: Susanville system provides city coverage and treatment plant with capacity of 500,000 gallons per day.

Fuels: Several oil company distribution plants serve area. Propane types of fuel are also available.

Building Regulations, Codes

City Zoning Ordinance, Uniform Building Code, NBFU Electric Code, County Zning, Subdivision Ordinance and Uniform Building code apply in suburban area.

Schools, Colleges.

Lassen Junior College, offering standard courses plus vocational forestry and vocational gunsmithing.

Lassen Union High School

Elementary Schools, 4.

Seventh Day Adventist School.

Hospitals: 2 existing and one proposed.

Churches: 14 churches of various denominations.

Clubs and Lodges: Total of 20, plus Farm Bureau, Granges, etc.

Recreation: Facilities include improved city parks, lighted ball grounds, a swimming pool, a golf course nearby, fair grounds, 2 theaters, etc.

The area is famous for its hunting and fishing, lakes and streams, winter sports and other outdoor recreation.

Post Office: Provides complete city carrier delivery.

Receipts: 1955 - \$73,901, 1956: \$74,696.

Banks: Bank of America, First Western.

Retail Outlets and Services: All types of retail business and service establishments are located in the City, and the medical and other professions are represented.

Transportation: The city is located on State Route 36 near its junction with U.S. 395, and is on the S.P. railroad. Trucking and bus service are provided, and a city owned airport is located a few miles south of the City.

Labor Supply, Housing, Wages: The California Employment office has listed a great variety of persons skilled in the trades and professions, wage scales are similar to other - west coast areas, labor relations are excellent, and housing is available at reasonable sale or rental costs (figures are available locally, and are subject to change).

General: Additional data referring to Susanville appears on page 7 of this report.

Industrial zoning and excellent sites are existing in the City and adjoining areas.

The general area is served by newspapers, radio station KSUE, and ~~"Antennaevision"~~, a "piped-in" television system giving good reception on channels 3, 8 and 12.

The City provides a trading center, warehousing and distribution services, and a coverage of 324 job classifications in a field of 3,390 workers registered at the State Employment office.

DISTRICT EXTENDS TO 2 MILES
FROM THE CITY LIMITS

C-2-H

R-1-A

CHESTNUT

R-1-A

A-1-H

R-4

C-2

R-4

C-3-F

R-1-A

R-1-A

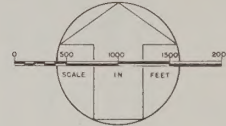
R-3

R-1-A

- A-1-H A-1-H GENERAL AGRICULTURAL USE - HIGHWAY FRONTAGE
- C-2 CENTRAL BUSINESS DISTRICT
- C-2-H COUNTY GENERAL COMMERCIAL - HIGHWAY FRONTAGE
C-3-F CITY GENERAL COMMERCIAL - HIGHWAY FRONTAGE
- M-1 LIGHT INDUSTRIAL DISTRICT
- M-1-F LIGHT MANUFACTURING
- M-2 HEAVY INDUSTRIAL
- R-1 SINGLE FAMILY RESIDENCE DISTRICT
- R-1-A R-1-A SINGLE FAMILY AGRICULTURAL DISTRICT
- R-3 R-3 NEIGHBORHOOD APARTMENT DISTRICT
- R-4 R-4 GENERAL APARTMENT DISTRICT
- CITY BOUNDARY

ZONING: SUSANVILLE & VICINITY

A-1-H



DISTRICT EXTENDS TO
THE RAILROAD CROSSING

WESTWOOD

Westwood was for many years a privately owned unincorporated town located in a scenic valley in the southwesterly part of the County. It was built by the Red River Lumber Company and later purchased by the Fruit Growers Supply Company which conducted an extensive lumber operation there until the mill was closed down in the summer of 1956 as a part of the company policy to concentrate its operations at other established mill locations. During periods of peak operations the town approached a population of 5,000 persons and contained all the facilities and services for such a population.

The present owners of the town are rapidly converting it into a diversified industrial and recreational center, taking advantage of the ideal facilities and resources which exist in the town and surrounding area to encourage such a physical and sound economic transition. As of June, 1958, 517 of 665 homes offered for sale have been purchased and several modern timber processing plants have located or plan to locate in the Town industrial area. The population has increased from a low of 500 to an estimated 2,500 on the above date.

TRANSPORTATION: Westwood is located on State Highway Route 36, a main interstate highway from Red Bluff in the Sacramento Valley 85 miles to the west, to Susanville, 23 miles to the east, and on to Reno. Two main line railroads, the Southern Pacific Railroad and Western Pacific railroad, serve the town using joint trackage and an extensive system of drills and spurs in the town industrial area. The Western Pacific line joins Great Northern Railroad at Nubieber to the north, providing additional interstate service. Truck lines provide daily service to Susanville, Chico and Red Bluff, and a daily passenger bus operates to Susanville and Red Bluff. There is a county airport at the westerly edge of town.

UTILITIES: Electric power and telephone service is provided by the California Pacific Utilities Company. Power is purchased by the company from the P.G. and E. Company, and a supply to meet all requirements is available through the nearby Hamilton Branch Powerhouse. Northern Counties Utility Company provides water via its 14 inch main from springs in the area. The source is adequate and supply may be increased if required. Water is pure and untreated for domestic use. Tank gas and fuel oils are available from Chester and Susanville. The existing sewage system and treatment plant serving most of the town area is adequate to serve a population in excess of 5,000 and industrial wastes are handled through a special treatment tank. All utility rates are reasonable, and may be checked in current schedules.

SERVICES, PROTECTION:

1. Police protection is provided by the Sheriff's office.
2. Fire protection is excellent and the BFW rating has been the highest given for this class town because of its high pressure main and hydrant system, alarm system, volunteer fire department with three pieces of modern equipment, sprinkler systems in various buildings and unlimited sources of water with pumps to supply mains.
3. Schools include a high school and new modern elementary school. Present total enrollment is about 500 students.
4. Other services include the post office, county branch library,

a 29 bed hospital with operating facilities, a lighted ball field, three lodge halls, six churches, a hotel and a 900 seat theater. There also are utility company offices, a service station, variety store, grocery, restaurant, furniture store, tavern, barber, retail lumber and builders supply, television repair, printing shop and other such services.

HOUSING, LABOR SUPPLY: There are more than six hundred homes and several hundred other dwelling units, and other privately owned homes on land leased from the Town owners. Some homes are steam heated from a central heating plant. Rents and purchase prices are very low and units are available.

There is a good supply of skilled labor in the town, including former mill workers who wish to remain in the area and are now commuting to jobs in other areas.

FUTURE PROSPECTS: The town of Westwood is ideally suited to development as an industrial and recreational center. Its climate is attractive, with warm summers and, having an elevation of 5,000 feet, short cold winters with some snow. The area is famous for its scenery, hunting, fishing and winter sports and has a great potential for recreation development.

Existing facilities for industrial development are unusually complete. In addition to the good transportation, utility, housing, labor and local services available, there are a million square feet ready made buildings with craneways and spur tracks, buildings used as sawmills, planing mills, sorting and shipping sheds, service garage, tin shop, electrical and plumbing shop, machine shop, painting shop, engineering office, general business office, etc. There are also buildings for all types of retail and wholesale businesses.

The present owners of the town are offering buildings, homes and sites of all types for lease or sale. Further information may be obtained from Greater Westwood, Inc., Box A, Westwood, California.

TOWN OF DOYLE

Doyle is a town of about two hundred persons located on U.S. Highway 395 approximately forty-four miles southeast of Susanville and the same distance northwest of Reno. It is a passenger and freight stop on the Western Pacific Railroad main line, with a depot and several railroad personnel including the railroad agent, stock foreman, section foreman and signal maintainer. Cattle, agricultural products and some ores are shipped by rail from the town, which is the trading and shipping center for the extreme southerly part of the county.

Doyle is also an outfitting center for hunters, and for prospectors who work through the mineral areas to the east, south and west. A number of uranium claims have been filed in the area in recent years.

The town receives electric power from the R.E.A., and telephone service from Citizens Utilities Corporation, through a local exchange. Adequate water is pumped from individual wells and sewerage is by septic tanks. There is a Western Union Telegraph office at the railroad depot.

Public facilities include the post office, an elementary school with grades from first through eighth, high school busses to Herlong and Susanville, a county branch library and a cemetery. Fire protection is provided by the Doyle Fire Department with a fire house and truck and thirty volunteer firemen. Three deputy sheriffs are assigned to the area.

Local businesses include a garage and several service stations, grocery stores, cafes and bars, a hardware store, second hand store, hotel and motel. There is a State and County highway maintenance yard in the town, and a protestant church, a Farm Bureau center, a local P.T.A. and the Doyle Civic League.

The town offers opportunities for new business, and extensive areas for industrial development on low cost land along the highway and main line railroad.

TOWNS OF BIEBER and NUBIEBER

Bieber and Nubieber are located in Big Valley which is divided by the boundary between Lassen and Modoc Counties and contains two other towns, Adin and Lookout, in Modoc County. Bieber and Nubieber are on U.S. Highway 299 running from Alturas to Redding. They are about two miles apart and are separated by the Pit River. Nubieber is the junction point of the Western Pacific and Great Northern Railroads, which serve both towns.

The twin towns which have a combined area population of about 750 serve as trading and service centers for the Big Valley area which produces cattle, feed timber and minerals, and is a hunting, fishing and recreation area.

Electric power is provided in the towns and area to the south and west by the Pacific Gas and Electric Company, and in the balance of the area by the R.E.A. Telephones are dial system of the Citizens Utility Company of California, and Western Union provides telegraph service. Adequate water is obtained from wells and primary storage is a 30,000 gallon tank on a 100 foot tower. Sewerage is by septic tanks.

Public services include a high school and an elementary school, a fire district with equipment and a volunteer fire department in Bieber and Nubieber, police protection through the Sheriff's office, a ten acre park with lighted ball park and picnic and barbecue facilities, and a county class 2 airport with a 3,200 foot runway planned to be paved.

Other local services are: a modern medical center, two churches, American Legion Building, a local newspaper (Argus Gazette), mortuary, daily bus service to Alturas and Redding via Lakeview-Alturas-Redding Transportation Company, and same-day service on San Francisco and Sacramento newspapers. A new church is planned for early construction and there is a site and building fund established for a Veterans Memorial Building.

Local business establishments include: a cold storage plant and creamery which provides pick-up service in the area, bulk oil storage plants, service stations, general merchandise stores, restaurants, laundry and dry cleaning services, hotels and motels and a theater.

There is a moulding plant at Nubieber, and lumber mills at Bieber and at Adin and Lookout in Modoc County. Hayden Hill gold mine is the principle mining activity. A substantial part of Big Valley contains diatomaceous earth of fair quality which may have future economic value. About 5,000 head of cattle are grazed in the valley area.

Towns of Bieber and Nubieber (Continued)

There are two hot springs in the area, one of which is developed with a swimming pool and picnic facilities to permit use of the hot mineral waters for health and recreation purposes. Other local recreation features are a skating rink and a new gymnasium and lighted ball park used by organized softball and basketball leagues. Civic and social activities include a Lions Club, Grange, three Farm Bureau Centers, Bieber Chamber of Commerce, Waller-Woodmansee American Legion Post No. 446, Native Sons, Native Daughters, I.O.O.F., Masonic Lodge, Eastern Star, Rainbow Girls, Ladies Pioneer Club, Ladies Aid, Red Cross, Salvation Army and Literary Club.

Big Valley offers unusually fine hunting and fishing, and a variety of game which includes ducks and geese, pheasant, quail and sage hens, mule tail deer and antelope. Catfish, bass and trout are taken in Pit River and fishing is good in Ash Creek, Willow Creek, Horse Creek and numerous lakes and reservoirs.

The area offers good opportunities for commercial, industrial and resort development due to its resources, recreation potential, and good transportation by two main line railroads joining at Nubieber, by the State Highway and recently reconstructed highway to Susanville (Joint Highway District 14), and by air to the County Airport at Bieber.

Land costs are very reasonable and sites with utilities and services available are plentiful.

OTHER COMMUNITIES

A. JANESVILLE:

Location: On U.S. 395 about 12 miles south-east of Susanville.
Population: Est. 560 (served by post office), 160 households.
Facilities and Services: Elementary school, post office, churches, cemetery, library, American Legion Post; Grange, Masonic and I.O.O.F. halls; grocery, motel, service stations, restaurants, building materials. Power and telephone service. Bus and truck service.

B. STANDISH:

Location: On U.S. 395 about 14 miles east of Susanville.
Population: Est. 300, (served by post office), 87 households.
Facilities and services: Elementary school, post office, church, service club, grange hall, 4-H Club building, fire station, grocery stores, service stations, motel, cafe, county road maintenance yard, California Pacific Utilities Company sub-station, bus and truck service, power and telephone.

C. WENDEL:

Location: At northeast corner of Honey Lake on Southern Pacific main line track.
Population: Est. 210 (served by post office), 60 households.
Facilities and services: Elementary school, post office, restaurant. Wendel is a S.P.R.R. division point.

D. LITCHFIELD:

Location: On U.S. 395, 16 miles east of Susanville.
Population: Est. 150 (served by post office), 44 households.
Facilities and services: Elementary school, post office, library, grocery, service station, cafe, garage, dairy, feed warehouse, oil distribution depot. Power, telephone, S.P.R.R. depot, bus and truck service.

E. RAVENDALE:

Location: On U.S. 395, 45 miles north of Susanville.
Population: Est. 130 (served by post office), 37 households.
Facilities and services: Elementary school, post office, restaurant, county road maintenance yard, S.P.R.R. division point, truck and bus service, power and telephone.

F. MADELINE:

Location: On U.S. 395, about 10 miles south of Modoc County line.
Population: Est. 110 (served by post office), 30 households.

Facilities and services: Elementary school, post office, stores, service stations, state highway maintenance station, on S.P.R.R. main line, truck and bus service, power and telephone.

- G. Other small communities, including Johnstonville, Milford, Little Valley, Pittville, Termo and Clear Creek provide services to adjoining ranch and timber areas and to tourists and the travelling public.

Herlong, with an area population of about 2,800 persons and 800 households, is located east of U.S. 395 at the south end of Honey Lake. Details of the community are listed on pages 16 and 17.

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